

# MICHIGAN FARMER

VOLUME XV.

DETROIT, APRIL, 1857.

NUMBER 4.

R. F. JOHNSTONE, Editor.

## THE MICHIGAN FARMER.

Issued monthly by ROBERT F. JOHNSTONE, Detroit, Mich.  
Office on Jefferson Avenue, 212 Advertiser Buildings.

### Terms.

For any number of copies not exceeding four.....\$1 00 each  
For a club of any number from five to ten.....80 cts "  
For clubs of any number not less than ten.....75 cts "  
All letters to be addressed to ROBERT F. JOHNSTONE, Detroit, Mich., (post paid.)

### Advertisements.

All advertisements for the Farmer must be sent forward so as to reach us by the 20th of each month.

### Rates of Advertising.

For a square of ten lines, single insertion.....\$1 25  
For each subsequent insertion.....1 00  
For advertisements making over one square, and for periods of over three months, our terms will be liberal.

The attention of Breeders of Stock, Nursery men, Florists, Seedsmen and Agricultural Implement Manufacturers, as well as those who wish either to buy or dispose of farms or farming lands, stocks, &c., is particularly called to the advantages which a circulation of nearly twelve thousand offers to them throughout the State of Michigan.

## CONTENTS.

### Agricultural.

Barley.....	97
On the structure and functions of Insects.....	98
Millet.....	101
A first rate, well planned farm.....	101
Monroe Co., its wants and capabilities.....	104
A farm difficulty overcome.....	104
On Raising Potatoes.....	105
Potatoes, large against small.....	106
On potatoes.....	106
Chlorine and rats.....	107
How to make a round shingle roof.....	107
Jettings.....	108
L. G. Norris no longer a breeder of short horns.....	109
Rotten chips as a manure.....	110
Foreign seeds, Discorea.....	110
Dra'ning, Ditching and farming in Livingston Co.....	110
Shade and forest trees.....	111
Caked udder.....	112

### Horticultural.

How to Select, take up, prune and transplant trees.....	113
The hotbed and its treatment.....	114
New fruits.....	115
About joining bees together.....	116
Peas early and late.....	116
Wash for trees.....	117

### Household.

Long Ago.....	117
A word of advice.....	117
A letter from Ohio.....	118
Hints to housekeepers.....	119
Enigmas—Answers.....	119

### Editorial.

To our Friend, Agent and Subscribers.....	120
Farm work and farm economy.....	120
Mar-a-s.....	121
Sorghum seed.....	121
Editorial Notices.....	121
The seeds.....	121
The late Hon. Lewis F. Miller of Moscow.....	122
Valuable stock.....	122
Stock Register.....	123

## Barley.

Amongst the crops which are found to be remunerative, at the present time, barley occupies a very prominent place. During the past winter, it has sold in this market at the rate of \$2.30 to \$2.50 per 100 pounds. As it is one of the spring crops which may be used to seed down with clover and grass seed, and is a better paying crop than oats, it may in many cases be found worth cultivation on some farms which are peculiarly adapted to its growth. Barley does not succeed well on a heavy soil; it needs a light, friable loam, and if the soil is rich, with an admixture of sand, it will be so much the better. The chief difference in sowing barley and oats, will be found in the cost of the seed. The same culture that is given to land for a crop of oats, is given to land prepared for barley; but barley ought to have the soil worked to a much finer tilth than is required for oats. The plowing should be deeper, and the after culture, such as the cultivating, harrowing and dragging, should be as thorough as possible. When a piece of sod is used for a barley crop, after the plow has turned it over, the cultivator should be run through it to the depth of four or five inches, and then the harrowing should be very thorough. After the seed is sown and harrowed in, the field should be rolled, for no crop is more benefitted by the roller than this one.

The amount of seed required to the acre, varies according to the views of those who sow it; some using as little as two and a half bushels, and others three and a half to four. Three bushels per acre is considered necessary, however, to secure a full crop. The yield of barley per acre, ranges from 20 to 50 bushels per acre, but when it reaches the latter figure it may be considered quite a premium crop.

Few crops are more benefitted by a good top-dressing of plaster, than barley; and plaster should be sown upon it soon after it makes its appearance above ground, at the rate of a bushel or a bushel and a half per acre. In some instances where the soil is poor, the yield has been materially increased by giving it a top-dressing of the dung of the hen yard.

There are three kinds of barley: the six rowed, the four rowed, and the two rowed, or Chevalier Barley. The six rowed is hardly ever grown, and so far as our acquaintance goes amongst the growers of this grain, the four rowed is seldom sown, where the seed of the two rowed can be procured. The latter gives a greater yield of grain, and a better quality of barley. Some growers estimate the difference in the yield to be equal to one-fourth more.

The cost and profit of a crop of ten acres of barley, compared with that of oats would be nearly as follows.

Plowing ten acres at \$1.50 per acre.....	\$15 00
Cultivating and harrowing, 50 cents do.....	5 00
Seed, at rate of \$2.50 per 100, or 150 lbs. per acre	37 50
Sowing, harrowing and rolling in seed.....	5 00
Plaster, 10 bushels at 50 cents.....	5 00
Harvesting, threshing and marketing \$3 per acre	30 00
-----	\$97 50
Estimate the yield to be 30 bushels per acre and there is 300 bushels of barley, weighing 48 pounds, at \$2.25 per 100 pounds.....	\$324 00
Leaving a profit for the use of land, together with the straw the value of which is not counted, of.....	\$226 50

#### Ten acres of oats would cost:

Plowing ten acres at \$1.50 per acre.....	\$15 00
Harrowing, if done.....	2 50
Seed, 2 bu. per acre, at 40 cents.....	8 00
Sowing, harrowing and rolling.....	5 00
Harvesting, threshing and marketing, \$3 per acre	30 00
-----	\$50 50
Yield of oats, 50 bu. per acre, at 40 cts. per bu., for ten acres would be.....	200 00
Leaving for use of land, the straw and.....	\$139 00

We cannot say that the present prices of barley will always continue as high as they now are, but it is certain that the demand is greater than the production, and is likely to continue so for some time. Where a farmer, therefore, has land that is in a fit state to grow barley, it will be seen that even with the high rates of seed, and the extra cultivation which may be given to it, that it is a crop which will pay better than oats, and we think it is surer to give a profit than spring wheat. Like all spring grain crops, barley should be sown as early as the state of the ground will permit, the earlier the better.

#### On the Structure and Functions of Insects.

BY HENRY GOADBY, M. D., F. L. S.

Condensed for the Farmer from the original in the Medical Independent for March, by permission of the Author.

The order of insects which is now to be considered, is the second or Hemiptera. This order includes all the *Bugs*, as they are vulgarly called. The whole order is *suctorial*, that is they are provided with a mouth of a peculiar organization, with which they can first pierce the cortex of plants, and then suck its juices. These insects, however, do not confine themselves to plants; when they come in contact with man or animals, many of them show their partiality for the juices which are contained in the flesh, and make known their presence in a manner that is sometimes very far from agreeable. What ever be the kind of food these creatures design to consume, they first thoroughly insalivate it, and it

is to this cause that the pain is attributable which accompanies their bite.

The largest known hemipterous insect, is the *Belostema grandis*, which measures about 2½ inches in length, and is an inhabitant of fresh water pools. This insect is found in the United States. Its bite is said to be very severe. The practical entomologist has frequent opportunities, despite of the utmost care and vigilance, of becoming painfully conscious of their power.

During our residence in Philadelphia, the son of a friend was one day bitten by a *Reduvius*; the consequence was a very painful tumor, as large as a hen's egg, on his forehead, which had to be removed by amputation.

Two remarkable facts in connection with this order, remain to be noticed: the majority of them are

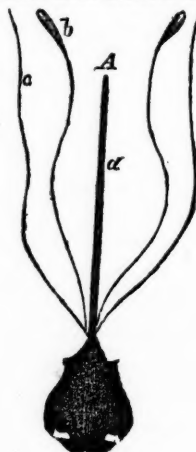


Fig. 11.



Fig. 12.

by far the most intensely beautiful of any insects known to us. The colors of many of them, defy alike description, or representation; so beautiful are they, that some ten years ago we mounted one of the most extraordinary we have ever seen—*Tessaratomia amethystina*—in gold, as a brooch, and a more elegant ornament cannot be imagined.

All the Hemiptera, if irritated, disclose not only a very powerful and disagreeable odor, but it is always of precisely the same kind—exactly similar to that of the bed-bug, and this constitutes the second remarkable fact to which we desire to direct attention. We possess Hemiptera from all parts of the world, many of them distinguished by the possession of pre-eminent beauty, but they all have precisely the same smell; the odoriferous glands of other animals are easily found, but in this class they have altogether eluded detection.

The present skeleton was obtained from *Halys mucorea*, a beautiful insect common in all collections of Chinese insects. A, fig. 11, represents the upper part of the head; it would be vain to expect to find upper and under jaws formed on the same

type as those of the beetle, but instead, we find organs which, although analogous, are essentially different in their structure.

*a*, is the upper lip;

*b*, the upper jaws, analogous to the mandibles of a beetle;

*c*, the under jaws.

*B*, fig. 12, shows the under part of the head which displays the under lip, modified into the form of a tube, consisting of three or four joints, for the reception and protection of the two pairs of jaws seen at *A*.

The jaws, in all the bugs, are merely four fine bristles; sometimes two of them, and sometimes all four, have enlarged terminations, variously modified, to enable the creatures to cut or pierce the bark of plants, or the skin of animals. But before this latter operation can be performed, it is essential that the terminal portion of the tube itself be *first inserted*; when this is accomplished, the bristles are thrust out, beyond the tube, to stab the tissue, to compel it to yield up its fluid, when the bristles are again in requisition to *pump up* the fluid in this wise: place a bed-bug on the back of your hand, allow it to insert its tube, and feed; while thus engaged, carefully examine it with a Codding-ton lens. The tube is so transparent that it is easy



Fig. 13.

to see through it, and a motion will be plainly seen of the bristles working up and down within the tube, like the rod of a piston within the barrel of a pump. By this means, the fluid aliment is literally pumped up.

The pronotum, a beautiful shield-shaped bone, is shown at *C*, fig. 13: it is of a large size, the lower part of it being required to cover the four bones, lettered *n*, fig. 15.

The under portion of the prothorax is shown at fig. 14, *D*. It will be seen that the omia are here of very different form from those of *Dytiscus*.



Fig. 14.

*j*, the omia;

*m*, their sides forming articulating surfaces with the pronotum;

*k*, the acetabula, (sockets for the hips);

*l*, prosternum.

The most conspicuous and remarkable bone in all these insects, as well as the largest in the body, is the mesonotum, fig. 15, *E*. It has been already observ-

ed that the bones lettered *n*, are covered by the pronotum; the remainder of this bone constitutes the post-scutellum, which is, in this order, of enormous size—it covers, and entirely conceals the next segment.

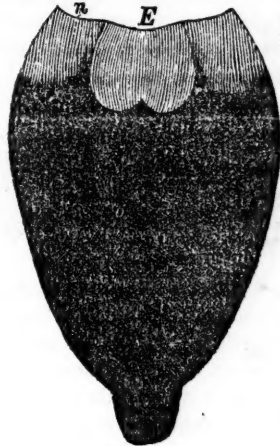


Fig. 15.

The mesosternal segment is shown at fig. 16, *F*.

*p*, shows the shoulder blades;

*q*, the sockets for the legs;

*r*, the mesosternum, and

*s*, the articulating surfaces.

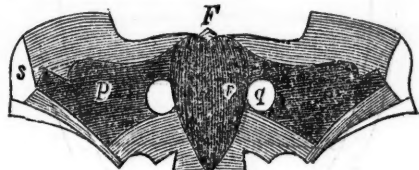


Fig. 16.

The metanotum, fig. 17, *G*, is a beautiful bone, and displays four articulating surfaces, in great perfection.

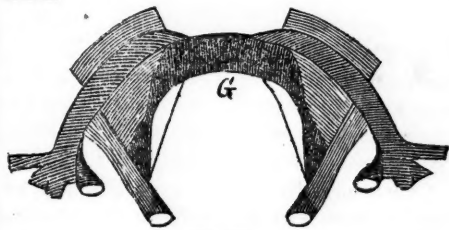


Fig. 17.

The metasternal portion, is shown at fig. 18, *H*.

*t*, the omia;

*u*, the acetabula, and

*v*, the metasternum.

The articulating surfaces of this bone are largely developed, and well marked.

The dorso-abdominal segments are shown at fig. 19, *I*. These are chiefly remarkable for the series of small side bones, which form the articulations with the ventro-abdominal plates.

This latter structure is displayed at J, fig. 20. The letter *w* points to the *spiracles*, which are transferred from the dorsal to the ventral plates.

In Dyticus, the dorso-abdominal plates were found to be leathery, and soft, protected, too, by the wing covers; here there is no such protection, and the dorsal plates are crustaceous. The spiracles, therefore, are transferred to the ventral surface, for superior protection.



Fig. 18.

The Linnean Hemipterous order contained insects that should not have been included in it, as we shall hereafter see; but as this order is restricted by modern Entomology, one important character must *always* be present, and that is the *rostrum* or *beak*, in which the bristles constituting the jaws are contained.

The *Hemilytrum* (half crustaceous wing cover) is by no means always present, on the contrary the wings of a large number of veritable tree bugs are

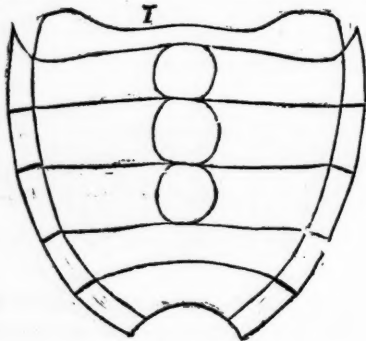


Fig. 19.

constructed on a totally different plan. An example of this is to be met with in the so called "seventeen years locusts," which, although possessing wings, all of which are composed of a delicately transparent membrane, the superior, being much larger than the inferior pair, is yet strictly *Hemipterous*.

To determine this question, it is only necessary to turn the creature on its back, when, if it be a bug, the peculiar structure of the oral apparatus, lying straight down from the head, between and beyond the first pair of legs, will sufficiently identify it, as *no other insect possesses a mouth of this form*.

When it is necessary to use this instrument, it is turned out at right angles to the body, and the height of the legs will generally determine the length of the rostrum, which is exceedingly various. In this position it is easy to insert the end of the tube into the substance, vegetable or animal, that is to be preyed upon. It should seem by the effects

produced, that the end of the tube is itself a cutting instrument, allied, probably, to a gun punch.

Some of the aquatic tree bugs, *Notonecta glauca*, especially, are singularly mischievous, destroying an incredible number of insects, merely for the pleasure of killing them. Times and oft, have we collected this species, together with beetles of all sizes, and aquatic larvæ of several species of insects, and having placed them all in the same jar, have found, to our dismay, on returning home, everything killed by the *Notonecta*, unless they chanced to be too strong and heavy for them to manage.

We have watched them, and seen the entire operation, in this wise: Like other insects, *Notonecta* must come to the surface of the water, ever and anon, to respire.

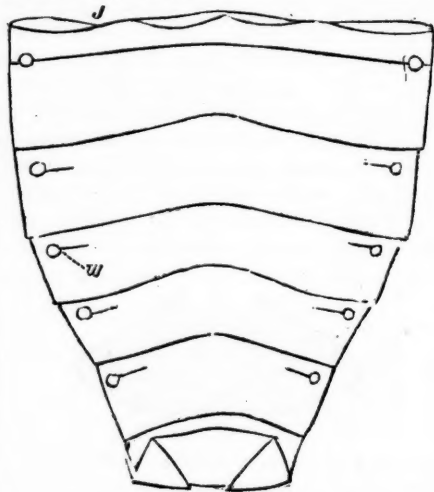


Fig. 20.

The creature's back is shaped like the keel of a boat, and hence it is commonly knopn as the boat-fly; the abdominal surface is perfectly flat—it swims therefore, with the back downwards. Having inhaled an atmosphere, if it chances to see another insect coming up to the surface of the water, with the like object in view, it seizes it in its legs, and descends to the bottom of the vessel, pertinaciously holding its victim till the cessation of its struggles assures the assassin that its death is accomplished.

If the hapless victim be so strong, however, that it can hold out until the boat-fly itself has need to respire, the cunning and cruel insect mounts to the surface, with its prey still firmly clutched between its legs, and adroitly elevating its terminal segments above the water for an instant, effects its object, whilst it takes care to keep its victim submerged. A second descent is usually too much, and the poor creature dies asphixated. Liberating the dead carcass, the relentless *Notonecta* seeks other prey.

It is highly probable, that while the insect is thus firmly held in the embrace of the boat-fly, that the latter sticks his beak into the former, and sucks his



blood; in this case the insect would die of loss of blood, and from the poisonous effects of the saliva. Notonecta is common in this country.

(To be continued.)

### Millet.

**EDITOR FARMER—Dear Sir:**—Permit me through your widely circulating columns, to express my views after several years' experience in the importance of growing millet for horses, cattle and sheep, believing its value is not generally understood, or farmers would adopt it as one of their regular crops. There are several reasons that make it worthy their attention, viz: It produces a large amount of nutritious food—a valuable auxiliary in case of a short hay crop, and far better for working teams than any kind of hay, particularly if not of the very best quality. The time to sow it is after the hurry of spring work is over, and to harvest it after the the oats crop is secured. Its ordinary yield is from two to three tons per acre. The product of seed is fully equal in quantity to that of oats, and weighs from 55 to 60 lbs. per bushel. It is equal to corn when ground for fattening stock, also when prepared as other grains for family use, makes the best of griddle cakes.

The time to sow it is from 1st to 15th of June. The mode of culture is to plough your ground, the deeper the better, as is the case with all grains. If mellow, one careful harrowing is sufficient, if not, harrow twice. Should the crop be intended to use as hay only, sow fourteen quarts of seed to the acre, drag in both ways with a light harrow, then roll the ground, particularly if lumpy. It should be cut when the seed has passed from the milk to a chalky state.

If the crop is desired for the seed to feed as grain, sow from nine to ten quarts per acre, and harvest as soon as the seed is hard. If threshed by a machine, it should be harvested as other grain; or, as is the most usual way, trod out with horses, as it shells easily, then it is only necessary to cure it the same as for fodder only, although the straw when grown for seed is coarse, after being broken up by being threshed it is freely eaten.

My mode of curing millet is very similar to that of clover, which, by the by, is the only true way. I let my millet lay in swath the day it is cut, until near night, then turn it and expose the green side to the dew. The following afternoon, fork it into small cocks, placing the greenest on top. The next afternoon, the cocks are capsize and left another day; then three or four are put together and left three or four days. If care is taken in forming the cocks, an ordinary rain will not injure them. Wet weather will not affect millet as readily as any of the grasses, which is fortunate, as it requires longer time to properly prepare for the mow. However, when cut, a

rake is not required, as it is carried by the scythe in a row. The whole process of curing is expeditiously done, and the grower amply remunerated.

I would decidedly prefer ten acres of ordinary millet, to twenty acres of coarse clover, to keep the same amount of stock. When cured and housed under ordinary circumstances, it is eaten with avidity, and no wastage. Stock will do better on it than the best of clover hay.

A crop of millet will come off in time, and leave the ground in a fine state to be prepared for winter grains. Farmers, try it, if only on a small scale. You won't regret it. **PRO BONO PUBLICO.**

### A first rate well planned Barn.

**ED. FARMER:**—Dear sir—Two years ago I built me a barn, and as it is just about the thing for which it was planned, and entirely *sui generis*, so far as I know, I have long contemplated sending you a description, with diagrams, that you might, if you felt disposed, give them a publication.

This winter having a little leisure, and some physical indisposition to keep me within doors, I took it into mind to send you some perspective views, as well as the geometrical outline. But as I had never acquired any knowledge of the principles of drawing, and being a dull scholar, as well as my own teacher, I should very likely have turned back had I known how many difficulties lie in the way of attainment in this seemingly so simple an art.

I send you several of my rude draughts. These you may return to me if you do not use them, or when you have no farther use for them.

The barn plan is 50 feet by 40, one foot more in the greatest length than mine as built.

The main building is 34 by 40, with lean to 16 feet wide, and 40 long for horse stable. Height of main post, from sill to top of plate, 18 feet; to top of purlin plate, 8½ feet; to peak, 4½ feet; lean-to post to top of plate 9 feet.

No. 1 and 2 of perspective views, is the barn as seen from points some two hundred feet opposite the corners. No 4 is the foundation and cellar, as shown before the barn was put on. No. 3 is a geometrical delineation of the floor plan, on a scale of 12 feet to the inch.

No. 1, of delineation, front door; No. 2, stable door; 3, back door; 4, side door; 5, door from main floor to stable; 6, three doors for ventilation of corn-crib when it is required, and to close it securely from the weather when the grain is sufficiently dry, as also for deliveries when drawing from the field, by having a few of the slats fastened together and hung with hinges to top of door-space. The middle door to be made in two, and swing each way, on account of narrow dividing spaces. No. 7, the crib itself, to be slatted all round in the usual manner, with chance of egress at the bottom and ingress at top, as from

outside. No. 8, granary; No. 9, stable; No. 10, stalls; No. 11, raised floor, eight inches high, between which and main floor are open spaces, closed by short planks hung on hinges, as shown perspectively in diagram, through which the cleanings of the upper stable are passed into lower one. No. 12, open space under mangers, extending the length of the stable, through which hay, &c., are passed into mangers of lower stable, No. 2, of basement perspective. No. 13, windows; No. 14, trap doors to hay-rack in No.

3 of basement. No. 15, floor entrance to cellar, with moveable stairs, that barrels of cider, boxes of apples, &c., may be let down or taken up by tackle. No. 16, scuttle to root bin; No. 17, receiving-spout from granary—so constructed as to deliver grain in either bin, when threshed in other barn or the field.

The partition wall, forming the cellar, should be 2½ feet thick at the bottom, tapering to 18 inches at the top. In order to secure from frost, it would be necessary to ceil overhead, and fill with spent tan, or

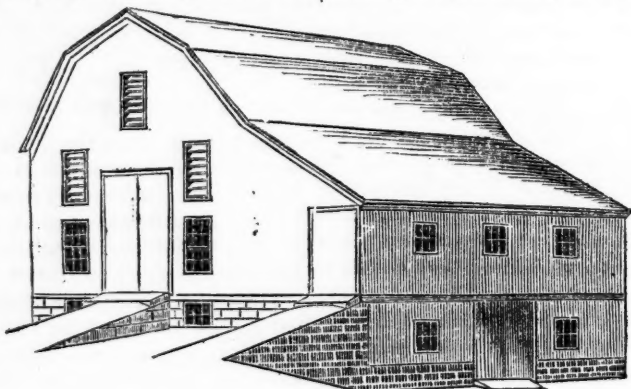


Fig. 1.

sawdust, before putting down the floor. This, with double doors leading to stable, and double windows, or double glass, (on each side of sash,) with care to keep all closed in severe weather, would obviate all

danger from freezing, even in such winters as the present one.

If the central wall should not be thought entirely reliable, it would be well to put in a plank partition,

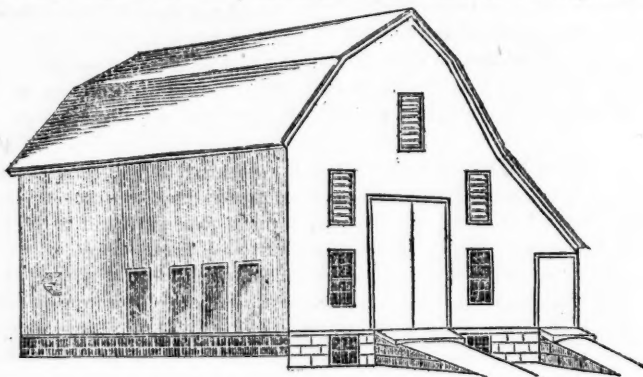


Fig. 2.

setting the plank ends in the ground, close to the wall, on inside, leaving them perpendicular; and the taper of the wall would create open space enough to be filled as overhead, and to be done at the same time. In this manner the utmost security would be obtained, and a cellar, it should be borne in mind, is valuable only in the ratio of its imperviousness to frost. Let it be paved with stone and floored with cement, and the work is done.

The stable, No. 2 of basement, is intended for heavy stock, such as cows, and working cattle, and is done off with stalls, and mangers. No. 3 is for

lighter stock—sheep, calves, &c.—and has a rack running the whole length. If this stable should be intended principally for sheep, it should not be closed up, but be connected with sheds. For calves and colts, and but few sheep, it would not be too close if the doors and windows were kept open enough.

As a general stock barn, I have never seen its superior. The principal advantages will be obvious—such as the feeding of all stock from the floor; their proximity, although in separate apartments; and their nearness to the feed, as the crib, the granary and the mow, which is all the space overhead,

above eight feet from main floor. And the mow floor, I will add, should be a tight one, both for convenience, and neatness of lower floor, by preventing the scattering through of fine hay or chaff. The

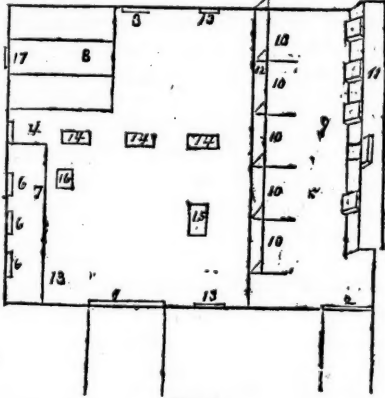


Fig. 3.

facility with which the horse stable may be cleared, is also worthy of mention, as by using a scraper a man may put the contents of the six stalls below in as many minutes, or less, not to speak of the advantage derived from mixing the two kinds of manure,

at least in cleanliness of the lower stable, from the dry character of the horse excrement, if it may not be claimed to retain, or eliminate any fertilizing elements. One of the first economies, as I conceive, in this plan, where a proper site may be obtained, is the freedom from mire and filth—the most usual characteristic of the stock-range, from want of sufficient declivity to carry off the surplus water; as also the liberty it gives for keeping the front yard clean and tidy as the majority of house yards, to say the least, if one has the taste and enterprise to do so. Not being necessarily traversed by any stock but those of the horse stable, and may be kept as a recreation range for the infant Morgans, or youthful Durhams, or other less aspiring scions of the farm.

It is becoming every year more evident that the stock growers of this climate must adopt some more efficient methods than the majority have yet devised for meeting, without loss, the exigencies of our severe and changeful winters. And, apart from the more evident economies, such as the saving of feed, through proper protection of his sheep or neat cattle, there is the incidental advantage to the farmer, not of dollars and cents, to be found in the satisfaction of mind and heart, from having his stock as comfortably

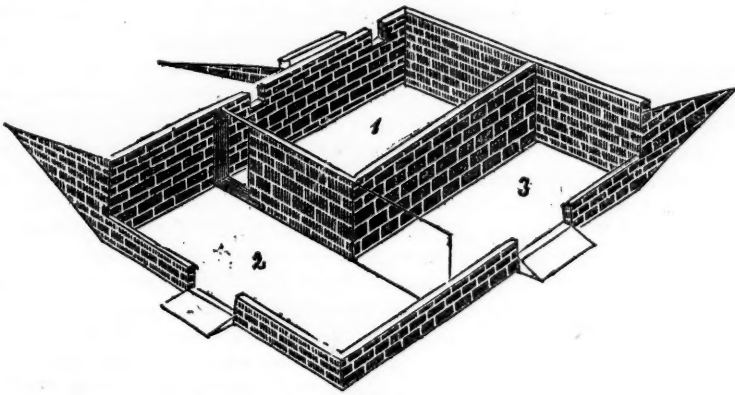


Fig. 4.

housed for their natures as he is for his, while sitting by his parlor fire, enjoying his cider and apples, these long, bleak winter nights, with the thermometer a score or more degrees below nowhere.

A man in building should consider well the relative value of the economies he wished to subserve, not forgetting that beauty is one of them; or rather, remembering that the end of all utilities is the evolution of a higher beauty, and a more perfect harmony in all the relations of life, even those that exist between man and the brutes. And it would not be amiss for him to know, that it is the combination of angles, or the relations of size, or proportions, in a barn, as in the human face or form, that makes all the difference of beauty or deformity. And after he has perfected his plan, let him know himself for a better carpenter than his carpenter, a better mason

than his mason, and have his work done as he says, and not as another may dictate, or he will have something ever after to regret, or to be done anew. Let him, when the work is commenced, complete it to the last nail, the last button on the last door, so as not to have only a make-shift at the last.

I will suggest, that the horse-stable floor, being above the other stable, should be made of entirely sound plank of at least three inches in thickness, and either matched or tongued when laid, and have an inclination of one-fourth inch to the foot.

And now, in conclusion let me say, that whatever of value you find in the above, you will please use it as it seemeth proper. I have no pride of authorship to be conciliated, at least in this, and if I were to offer an apology for not writing a more elaborate article, as the subject is ample enough, it would sim-

ply be one of indisposition. And I am not quite sure if I should not have debarred myself the pleasure, if such it can by any possibility be termed, of penning these few undigested ideas. And lastly, permit me to say, that should you ever have occasion to visit this portion of our peninsula, be kind enough to seek me out, and not only see the *veritable* barn, which you would find to look very like, only my drawing might give you the idea of cut stone walls, which we do not have in these parts—but you might find something unique, and suggestive, in my house, orchards, nurseries, hedges, &c., that would not leave your call entirely barren of benefit.

I saw you at Ann Arbor, at time of fair, last fall, and would have felt a pleasure in making your acquaintance, but your evident ill health, and absorbent duties forbade it being a good to either of us, and I would not intrude myself upon your notice.

With much respect, I am very truly yours,

B. HATHAWAY.

*Little Prairie Ronde, Feb. 1857.*

### Monroe County and its wants and capabilities.

DEAR FARMER:—A long time has it been since last I came a visitor to your columns, and now perhaps not welcome; nevertheless I come. If thou biddest me come in, well; if not, it is well.

I propose to talk of non-resident lands, legislation and aziness of ditches, dollars, crops and common sense. In the latter commodity, however, I shall deal very sparingly, as it appears to be as uncurrent as Illinois money, and as much below par as the famous wild cat, that in former times was begotten by the wholesale swindlers of Michigan.

Having lately had occasion to examine about ten thousand acres of non-resident lands, situate in Monroe county, in this State, I was much surprised at the extensive primeval forests that overspread so great a portion of this county, and at the very low price at which landed property is held. When we consider its locality and the length of time that has elapsed since the first settlements were made in this part of our State, we can but wonder at the sparseness of the population. Here we find tracts of two hundred thousand acres, over which the hunter and his game hold exclusive dominions, except in some localities where the value of the timber has invited the cupidity of the timber pirate. A great part of this county lies rather low, much of it heavily timbered with beech, maple, cottonwood, black ash, and occasionally some white wood. The majestic oak towers here in all the strength and beauty which characterizes that noblest tree of the forest. Here, too, we find spread out in all their native grandeur, those beautiful woodlands denominated openings. The almost entire absence of underbrush in many places, allowing the eye to scan hundreds of acres in one view; the gentle undulations of land; the sturdy

oaks that always seem to have sprung up in exactly the right spot—all combined, render the view at once enchanting and delightful. But what of all this? Monroe county, with her rich soil, majestic forests, fine running streams, beautiful landscapes and unequalled marketing facilities, lies dormant. A terrible nightmare apparently is upon her. But touch her with a little of the right kind of legislation, and she will spring into life. Let legislation open her veins with shovel and scraper, so that her surface water may flow into her rivers and lakes, her produce will then fill her markets, and its proceeds the purses of her citizens.

We do not pretend to say that there is no poor land in Monroe county; but we do say that comparatively there is very little which may not be made valuable farming lands at a trifling cost. As a general thing the soil is good, much of it of a first rate quality—but all wants draining. But it will be a long day ere this will be done, unless she sends energetic men to our legislature, and those too who will feel interested in her best interests, by procuring the passage of a suitable ditching law. In that county there are many energetic, public spirited men, that already have done much both by example and precept towards promoting the general good, and who are ready and willing to do more. But a majority of the inhabitants are lazy, indolent and shiftless, and this especially in regard to anything that is of a public nature. Their public spirit begins at home, stays at home, and ends there. It may generally be found tied up in an old stocking leg, or else stowed away in some corner of some old chest, and very often the leg of the old stocking appears slab-sided, and the chest corner is found vacant.

But if these men will bestir themselves, and dig a few suitable ditches through their county, their uncultivated lands that now will not bring on an average five dollars per acre, will soon bring ten. This once done, an increase of crops would very soon more than pay all expenses. Then immigration, instead of shunning them, and going hundreds of miles further west, into a poorer country, and colder climate, would have more inducements to stop here. Common sense teaches us that such would be the case. The marketing facilities are good, the soil good, the timber plenty, and yet all wanted. So that we find the great drawback is not a want of market, nor of timber, nor of a good soil, nor is it generally a want of roads—but simply of drains. S. BARENT.

*Jonesville, Feb. 1857.*

### A farm difficulty overcome—Rotation for opening lands.

ED. FARMER:—There are, no doubt, many farmers in Michigan situated much like myself, with a delicate family, and unable himself to take hold of the heavy part of the work, even in the most hurried time, and



must depend entirely upon hired labor to put in the crops, tend and gather them; and the great difficulty of obtaining the help that is perfectly competent to the task, can only be appreciated by those who have undergone the sad experience. For the benefit of such a class of farmers, I wish to make known through your valuable paper, that I have sought a remedy, and in my own case have adopted it. It is to rent the farm to a good, efficient *young farmer*, who has the mental and physical ability to conduct the farm to the best advantage, after the general programme and rotation of the crops are carefully laid out by the landlord, for a series of years, the farm put in good order, and some fine stock to begin with. I have adopted this plan, and for the benefit of those similarly situated, I will give an outline of the circumstances and bargain.

In the first place, I looked around for the best young man that I knew of, such an one that wanted a farm of his own, like unto his father's, and *that* a superior one, made so by industry and good economy in the united efforts of the family, taken from a state of nature. I had no difficulty in making my first choice, my acquaintance with the father had been some twenty years. I dropped a line by mail, which was answered immediately and favorably, for the father, as well as the two eldest sons, had previously visited the great western prairies in search of land for the younger branches of the family, for their future residences. They found any quantity of good prairie land at government price, but the difficulty in getting lumber to put up a suite of good farm buildings, amounted almost to an impossibility, the price being from 75 to 125 dollars per 1000 feet—consequently they concluded that the timbered land of Michigan was nearly equal in point of advantages for making a comfortable home in old age, and that renting a *good farm*, upon good terms, for the present, was quite as advantageous as either. I therefore had no difficulty in procuring the tenant that I first desired, and here I will give him an introduction to my brother farmers as Mr. Caleb Lawrence, son of Daniel Lawrence, Esq., of Climax prairie, in this county.

In renting my farm to Mr. Lawrence, I furnish a pair of good horses, equal to one-half the necessary team, some good cows, a small flock of sheep, and the necessary farm implements, all of which are to be valued and kept good. I find one-half the seed, and pay all taxes except road tax. I have my farm platted off into seven fields, of equal size, being twenty acres each, and numbered for a regular rotation of crops for a succession of years, besides twenty acres embracing the house lot, garden, orchard, other small lots, barn yards, &c.

The seven fields undergo a regular process of farming, which Mr. Lawrence, as well as myself, conceives to be the most profitable that can be adopted. I

will give you the rotation and fields as they are numbered, which will better explain my process of farming.

Year.	Fields numbered.						
	1	2	3	4	5	6	7
1	Corn	Clover	Wheat	Wheat	Clover	Wheat	Oats
2	Oats	Corn	Clover	Wheat	Wheat	Clover	Wheat
3	Wheat	Oats	Corn	Clover	Wheat	Wheat	Clover
4	Clover	Wheat	Oats	Corn	Clover	Wheat	Wheat
5	Wheat	Clover	Wheat	Oats	Corn	Clover	Wheat
6	Wheat	Wheat	Clover	Wheat	Oats	Corn	Clover
7	Clover	Wheat	Wheat	Clover	Wheat	Oats	Corn

In this rotation I have on the farm, yearly, sixty acres wheat; twenty acres corn; twenty acres oats; twenty acres of clover for pasture, and twenty acres of clover for hay and seed, besides the small lots, orchard, &c., which are farmed as necessity or fancy may dictate. One-half of all the products of the farm comes to me, for rent, and the other half to Mr. Lawrence for his labor and expenses.

The philosophy of my rotation of crops, I may, perhaps, explain at another time, for I conceive it to be a good rotation for our opening as well as prairie land.

A. Y. MOORE.

Schoolcraft, Feb. 16, 1857.

### On raising Potatoes.

ROBERT F. JOHNSTONE, Esq.—SIR:—You say in your number for December '56, page 17, that earthing up potatoes after they set, will prevent their growth and increase. Such is not my experience; I have planted potatoes deep, and earthed them up very high, and the only difference I could perceive was this: they are, in the first place, worse to dig, and, second, there are none with green sides to them. About the best crop of potatoes I ever saw planted on level land, and neither hilled nor ridged, but worked on the level, well hoed, and kept clear of weeds, but, as I said before, they were worse to dig. Now, I will whisper in your ear a small secret, but you are not to tell it again, you know, and that is how to raise the greatest crop and the best potatoes. If your land is very rich, draw straight and very shallow furrows from one end to the other of your potato field, and just thirty inches apart—but if your land is not rich, thirty-six inches apart; cut your potatoes with one eye in each set, plant them (each set,) one foot apart in the bottom of the furrow, cover them with the plow, and in eight or ten days after go a couple of times along each row, with a light harrow—the harrow may cover two rows. After the vines are through the ground, cultivate, earth up, &c., and do not suffer a weed to grow, and you will not be disappointed of a large crop, and very few small ones. It is to be understood that the ground has been well ploughed and dragged previous to planting. Nearly the best, if not the very best wheat I have seen this last fall was ploughed into the ground with an ordinary plow, but the land before that was in a high state of tilth.

Sir, can you or any of your correspondents tell me how to raise gooseberries without their mildew-

ing? I have tried salt about the roots, and pruned them heavily, but all would not do it. Last winter finished my bushes, but if I knew how to prevent mildew I would get others. I have also some English black currant bushes, and in nine years they have only fruited once; they flower out in the spring well enough, but when the fruit begins to set it withers and drops off. Does any one know a remedy? I shall feel grateful for the knowledge of it.

I will not write any more until I come across a better pen. Heigh ho! Mr. Editor, if you are as tired with reading this as I am with writing it, you are more to be pitied than envied.

Yours truly, UNCLE JOHN.

### Potatoes, Large Seed against Small.

R. F. JOHNSTONE—Sir:—As much has been said and written on the subject of raising potatoes, and so wide a margin between the amount of seed to be sown, I will give you my experience when farming in Vermont. The County Agricultural Society having offered a reward of \$10, for the best half acre of potatoes, I went in for the X. The soil a clay marl, manured, plowed twice, deep furrowed both ways rows wide enough one way to plow between. I planted eighteen bushels of the largest potatoes I could select, put three in a hill five or six inches apart, covered about four inches deep, plowed once, hilled them a very little, kept the weeds out with the hoe, and dug from the half acre 315 bushels of potatoes. The kind planted the English White.

Many persons select for seed the smallest potatoes, others cut them. I have tried both on the same soil, in the same year. When I planted the whole potato I had a good yield, the cut potatoes about half a crop, and from the eyes hardly worth digging. With rich moist land you may get a fair crop from cuttings or planting eyes. Farmers usually, from all other crops preserve the best seed, why not use the best and largest potatoes. If the season should prove a dry one, while your eyes and cut potatoes dry up, the large one retains sufficient moisture to produce something. *Tall oaks from little acorns grow, but dwarfs never produce giants.*

Respectfully, S. CHIPMAN.

Centerville, Feb. 1857.

### On Potatoes.

MR. EDITOR:—My experience in raising potatoes may be of some benefit to the readers of the *Farmer*. Last spring I bought eight bushels of long pinkeyes of Mr. Rice, of Detroit. I planted them in drills, by themselves, and many other varieties adjoining them on the east and west. The whole field was planted in drills, and covered with about two or three inches of earth, and then with marsh hay four or five inches deep. They grew luxuriantly; the

whole field was one complete bed of potato flowers, of various colors. The field produced well, and when I harvested them there was not more than half a bushel of long pink-eyes. The pink-eyes proved to be nearly round, with one end the smallest. Mr. Paxton, of Amherstburg, bought some of the same kind, at the same time and of the same man. He planted them and harvested the long pink-eyes, the same kind that he bought.

We all know that Indian corn will mix by the pollen or fine dust which is contained in the anther of the flowers, blowing from one variety to another, and this proves to me that potatoes will mix also by the pollen blowing from one variety to another. And this mode of planting all varieties together, may be one cause of the potato rot. My experience proves that the Irish Grays, Round Flesh Color and Hemlock, are the least subject to rot.

Plant potatoes early on dry, warm land.

The *Farmer* is interesting and useful to its readers. But let us all lend a hand in writing for it, and make it more so. Some will say, I don't know how to write my experience and facts. But it matters not how it is written, or how spelled, all we want is your experience and facts. So out with it; do the best you can; that is all we ask. The editors will correct it, for that is their business; therefore send your communications on, for it is not expected the farmers are good scholars. But we hope the time will come if our agricultural college prospers, when the farmers will be good agriculturists and scholars.

Yours, G. CLARK.

Esoset, Feb. 25, 1857.

[Mr. Clark, in his invitation to the friends and correspondents of the *Farmer*, utters our views exactly. To make the *Farmer* practical, we must have the different views and experiences of practical men. Their facts, their observations, their wants, their suggestions should be sent forward freely and frankly, with confidence in our judgment that they will be used with discretion.

We do not see how the mixing of the pollen of the flowers could affect the potato tubers, and make long pinkeyes round ones. We think this alteration in the shape of the potatoes was owing more to the method of cultivation. The covering of the field after it was planted, with marsh grass, would be more likely to affect the shape of the tubers, than the growing of several varieties side by side. Had Mr. Clark grown the potatoes from the seed of the potato plant, his argument would have some weight; but he grew his potatoes from tubers, and no fructification of the flowers would effect the products of the roots, any more than the mixing of the pollen of the peach blossom would affect the fruit obtained from a graft.—Ed.]

### Chlorine and Rats.

EDITOR FARMER—Dear Sir:—In the February number of your valuable monthly, I find an article copied from the Pennsylvania *Farm Journal*, headed "Expelling Rats," the editor of which seems to think a new discovery has been made by employing chlorine gas for killing rats, an elementary substance which has been known since 1774, as destructive to *all animal life*, and has long been employed by the owners of vessels to rid them of the wharfrat, which is effected by placing a jar containing the materials for the evolution of gas between decks, and, closing the hatches for twenty-four hours, after which a wind sail is placed down the hatchway, and thorough ventilation given before the carcasses are sought for. Now, the object of this communication is to call the attention of your numerous readers, who rely upon what they read in the *Farmer* as being facts, to that part of the article in the following words: "It may be here stated, that the quantity of the gas so liberated can exert no injurious effect upon the house or its inmates; indeed, the result is rather beneficial than otherwise upon the general health." Can it be possible, that the editor of the *Journal* would have recommended the introduction of a poisonous gas into the houses of our citizens, with the statement that it possessed no injurious properties, either to the house or its inmates, had he been acquainted with the irritant effects of chlorine. I refer him to the works of Davy, Ure, Pereira, Dunglison, Brande, Taylor, &c.

Ure says, when we breathe it, even much diluted with air, it occasions a sense of strangulation, constriction of the thorax, and a copious discharge from the nostrils. If respired in larger quantity, it excites violent coughing, with spitting of blood, and would speedily destroy the individual amid violent distress.

Dunglison, in his Table of Poisons, says chlorine produces, when inhaled, violent irritation of the organs of respiration; cough, bloody expectorations, inflammation of the lungs, and permanent pulmonary disease.

Taylor on poisons says, in a concentrated state, the attempt to respire this gas, would probably be attended with the immediate destruction of life.—When diluted with even a large proportion of air, it has a peculiar and pungent odor. It is highly irritating if respired, exciting cough, and in some instances spitting of blood. When it does not immediately destroy life, it may give rise to inflammation of the air passages and lungs, and thus slowly lead to death.

The celebrated chemist, Pelletier, is said to have lost his life from this cause.

Now, reader, what is your opinion of the *beneficial effects* upon the general health, of inhaling chlorine

gas, which, mark you, is to be strong enough to irritate all ratdom, but will have no injurious effects upon the inmates?

Mr. Editor, I doubt the propriety of introducing this chemical experiment to the farming community, more especially in the ambiguous formula given in this article; and I protest most strongly against the erroneous assertion that it can exert no injurious effects upon the human family. It is not to be supposed that all the readers of the agricultural periodical journals are acquainted with the properties of the various gasses, respirable and irrespirable. Here lies the danger in recommending the employment of them in our abodes. Hoping that no accidents may have ensued from the practical application of this *chemical arrangement* among your numerous subscribers, I am, Yours respectfully,

JOHN R. SIMPSON.

Hilledale, Mich.

### How to make a sound shingle roof.

MR. EDITOR:—As I have had something to do with the carpenter's trade, I thought that I would give some of my ideas about that kind of work. I have often noticed the roofs of buildings that had some holes through them. The question occurred to me to find out what the reason was that a hole should come in one place and not in another, and on examination I found the fault to be in the laying of the shingle, and that nine-tenths of the mechanics make the same mistake in laying shingles. I presume that some of my old friends will think that I am a little green to think of teaching them how to do as simple a piece of work as to lay a shingle, but perhaps I shall give them a new idea. I now ask any of them to examine their roofs, and see if they cannot find some of the very places that I shall describe. I shall commence to describe the bad places by taking four courses and numbering them. No. 1 is five shingles long. The first and last shingle of the course are four inches wide; the three middle shingles are eight inches wide. This will form the first course. The next course is four shingles eight inches wide. These cover the same length and make No. 2. No. 3 is the same as No. 1, and No. 4 as No. 2. Now, many at the first sight will say we have a good roof and the joints well broke. But let us examine a little and see. The second course in the joint of the third course is but one thickness of shingle through to the roof board, (and that, too, at the second space of the shingle, as a shingle is usually divided into three spaces,) and in process of time the shingle will wear through and leave a hole through the roof, while the rest of the roof is good.

I am aware that shingles are of varied widths, and do not come all in the form that I have shown; but I take this way to show how to find the bad places. I shall now give my rule for laying shingles, and how



to avoid making such bad places in a roof, for they occur in most of roofs, if the workmen do not know how to avoid them. You must be careful not to make a joint directly over the joint of the second course below the one you are laying; or in other words, to break joints with the two last courses that you have lain.

A. C. BRIGGS.

Oscola, March, 1857.

### ! Jottings.

FEB. 19, 1857. SOUTH BEND, IA. *Friend Johnstone*: The thaw and rains which commenced on the 7th inst., and have continued with but few intermissions up to the present date, have taken the frost out of the ground, and the fields of wheat in this (St. Joseph County) and in Laporte County, are looking admirably; they cover the ground like a green carpet.

At Laporte, on the 17th inst., I was shown, and took particular pains to inspect, the Reverse Tooth Grain Drill, patented June 24, 1856, by Messrs. Fravel & Lemon, of that place; and I wish to speak of it without any exaggeration, and have the confidence to say that I consider my judgment worth *something* in this case, as I was raised on a farm, but have spent some twenty years of my manhood as a mechanic. This is certainly an improvement on all former Grain Drills, and truly worthy the attention of farmers and such mechanics as are prepared to purchase the right of territory and manufacture. It needs but a glance to perceive its advantages over others. The teeth being reversed, reduces much of the resistance, and entirely removes the liability of accident by contact with roots and stones. This feature also renders it perfectly adapted to uneven and rough surfaces and rooty ground. Again, its simplicity of construction renders it so easy of management to let on just the quantity of seed per acre, either in drills (rows,) or broadcast, just as one's notion may incline. Upon the whole, I think that every farmer, either on old farms or new, will want this implement as soon as he sees it operate; and the sooner manufacturers make application for territory, the better for them. Messrs. Fravel & Lemon informed me that they had both been confined by sickness, which was the reason they have not traveled to exhibit the machine.

In my jottings published in March, one or two things were overlooked, which I had promised to notice, and which may be made brief mention of here. One was the kind attention extended to me and to the interests of the *Farmer* by our friends in Dexter and in Jackson. Among those of the former place, I mention Dr. Gray, the *Farmer* agent, and Mr. Amos Bentley, the host of the Crawford House. Those who visit this house will not have occasion to say "there is not a good public house in Dexter." Travelers will enjoy pleasant rooms and the kindest

attentions, besides being conveniently near the railroad, opposite the depot.

At Jackson I met with that warm friend of the *Farmer*, Dr. J. T. Wilson, keeper of the unostentatious Temperance House. He is doing something in the nursery line, and says that tanners' oil, applied to fruit trees within reach of rabbits, will effectually prevent their mischief; but that the application will destroy young trees unless thoroughly washed off with soap suds, early in the spring, before the buds start. But Mr. J. L. Thorn, of Baldwin's Mills, says he has successfully prevented the damage by rabbits by the above application to his own trees for three years, without injury to the trees. Still I would suggest to those who try it, that the soap suds washing in the Spring will benefit the trees.

At Concord, in Jackson County, I dined with our kind friend, M. L. Ray, formerly of Canadice, N. Y., who gave me the following particulars of his success in farming. He bought and moved to the Lathrop Farm, in Concord, in 1852, and after paying all his available means down, was \$3000, and more, in debt. The farm was originally rich burr oak, black sand, and loam, with a small per cent. of clay. It had been badly run, and nearly exhausted with wheat and grain crops in succession for eighteen years.—Mr. Ray talked of clovering down; his neighbors told him it would not do; he must keep it up and still run it to grain to pay off his debt. He replied, clovering down was the very way he expected to pay off the debt; he could never pay by running already worn out fields. By clovering and good management, with the help of his orchard, he now has the debt all paid, and has commenced building a good house. Excellent barns are already on the farm. He has now eighty acres down to clover.

But, "He that getteth a good wife, getteth a good thing."—(*Bible*.) Mrs. Ray, while her husband was delving on his newly purchased farm, took her carriage and circuited the neighborhood to pick up some stock, sheep, &c., to begin with. Mr. R. objected to driving home all her purchases, telling her she had bought too many sheep; and one cow that she had taken a particular fancy to, he thought they could not spare money enough to pay for. Her reply was, that the sheep were lower grade, consequently low priced, and the cow she would return butter enough to pay for before Spring. All were brought home, and in February she had returned the money to her husband for the cow, and one dollar advance. At shearing time, her husband told her the sheep had netted him one dollar per head, clear profit, and wished she had purchased more.

After the above were noted, the extreme cold weather prevented my getting far from the railroad, consequently I did not see much of the farmers.

At Kalamazoo, I made a note of a horse, which I have since lost by accident; but when the owners



send in their advertisement, you may notice him editorially, with the assurance that the horse is not over-praised, except, perhaps, in one or two very slight particulars.

BALDWIN.

[This horse is the one advertised this month as "Black Hawk Beauty," and though we have not yet seen him, we have heard him well spoken of by several gentlemen whose judgment in such matters is reliable.—ED.]

#### L. G. Morris no longer a Breeder of Shorthorns.

The following letter, received at a late date, gives us occasion for great regret, not unmingled with some gratification. We are very sure that there are no agriculturalists in the country who will not learn of the withdrawal of Mr. Morris from the eminent position he has so long and so honorably occupied as the greatest of Shorthorn breeders, without feeling that a most useful citizen and faithful friend of agriculture and of the improvement of the stock of the United States, has retired from a position which he adorned and honored. Mr. Morris, for the last ten years, by his wise outlay of capital, by the high probity which characterized all his transactions, by the liberality and enlarged views that guided his practice, has done more to awaken an interest, and guide American cattle breeders to correct ideas of the value of improved and good stock, than any other man in the Union. In the history of cattle breeding in the United States, his name has a place which cannot be obliterated; and by the exercise of his judgment, and the prompt but well considered purchases he made in Great Britain, he has given a high character to American agriculture among the most skillful and most liberal agriculturists of the Old World. We regret the withdrawal of such a citizen from an employment so useful to the great interests of agriculture, and to which he has contributed such distinguished aid. We have, however, just cause of congratulation that the stock which Mr. Morris had taken so much pains to bring to perfection, has passed into the hands of a gentleman who is both able and willing to carry out the principles of breeding to their fullest extent, and whose liberal and expanded views in connection with the science of breeding are such as prove him to be worthy to take the place and assume the reins so gracefully laid down by the writer of the following letter:

ROBT. F. JOHNSTONE, Esq.,

*Editor Michigan Farmer, Detroit.*

Dear Sir:—It is with mingled feelings of pleasure and regret that I announce I am no longer a Shorthorn breeder. My residence being permanently fixed at Mount Fordham, it was impossible to carry on very pleasantly the occupation at Herdsdale;—12 miles distant—and the only regret I feel, independent of my pleasure with the animals, is that I shall disappoint those who wanted a few of them, and lose, to a certain extent, a continuance of the numerous and pleasant acquaintances which I have formed.—Having purchased the entire herd of the late Mr. Becar, and prepared the manuscript for my catalogue of 1867, I was solicited by Mr. Thorne, of Thorndale, to let him look

at it previous to its going to press, which resulted in the highest priced sale ever made in this country or England, not excepting those of the Collings and Earl Ducie.

The pleasure I feel is that so many valuable strains of blood are now to be united on one farm, and if judiciously managed—which I have no doubt they will be—more good will be secured to the country at large, by keeping them together for a term of years longer, than if they were now distributed far and wide.

I have wound up my career as a breeder, with a reasonable pecuniary profit, and a synopsis of the sale will be published shortly.

With many thanks for the liberal support of the community for years, and their frequent expressions of confidence in my having done some good, which I hope and believe will be realized, as the seeds or strains of blood of various kinds of animals so diffused, will continue to yield a profitable return to the country. I remain,

Yours with great respect and esteem,  
Mount Fordham, March, 1867. L. G. MORRIS.

BRICK-MAKING.—A correspondent furnishes the following in answer to an inquiry recently published in this paper:

Bricks may be made of any earth that is clear of stones, but all will not burn red. In England, bricks are chiefly made of a hazely yellowish colored fatty earth, somewhat reddish, commonly called loam. According to Leibourn, the earth should be dug before winter, and not made into bricks before spring. In general, the earth whereof bricks are made ought not to be too sandy, which makes them heavy and brittle; nor too fat, which makes them crack in drying. Tempering the earth properly is the all essential secret. Using too much water makes them brittle; too much sand or ashes, or sandy earth, makes a light brick, full of cracks.

Bricks made of good earth, and well tempered, as they become solid and ponderous, so they take a longer time in drying and burning. The well drying of bricks before burning, prevents their cracking and crumbling in burning.

I knew a person who owned a fine bed of clay, and commenced brick-making, but his brick came out of the kiln useless. The clay contained too much gravelly limestone. He then made a mill for crushing his clay in a dry state, after which he could manufacture excellent crockery. It is not the richness of the soil, but lack of duly tempering, that causes failure in brick making.—*Country Gentleman.*

It will be seen that the Board have postponed the opening of the Agricultural School.—This postponement was rendered necessary by the breaking up of the roads, and from other causes which would not permit the building to be furnished, and all the arrangements for the reception of pupils perfected. Those who desire information as to the terms, and form of application, should write to the Hon. Ira Mayhew or J. C. Holmes, Esq., either of whom will give all the details necessary.

The seeds of most weeds retain their germinating properties for an indefinite period of time, and also under circumstances which would destroy the seeds of cultivated plants. Hence all weeds should be gathered and burnt, as being the best mode of getting rid of them permanently.

### Rotten chips as a manure.

EDITOR MICHIGAN FARMER:—I think the value of rotten chips as a manure, especially for trees, is not well understood by farmers generally. I have come to this conclusion from the fact, that they are very little used for that purpose where I am acquainted. The practice of most farmers, when their chip pile becomes a nuisance, is to draw it into the nearest causeway, or if none be convenient, to deposit it in an unsightly heap by the roadside, where it becomes a nuisance to the public. This plan of depositing it by the wayside was followed by an old friend of mine, and one of the most thorough farmers in Clinton county. I hope, if he reads this article, he will remove that now thoroughly rotten heap to his orchard, and try its effect as a manure for his trees. I have never tried any thing equal to it, in protecting recently transplanted trees against the effects of drouth. When spread around trees to the depth of three or four inches, the soil underneath will remain moist through a long season of drouth.

I was first led to try it by noticing that the ground under old rotten wood and piles of chips is always moist, even in the dryest weather.

In the spring of 1854, I transplanted quite a number of forest trees; butternuts, maples, pines, &c., and having a large quantity of chip manure, which had been accumulating for years before the place came into my possession, I gave most of the trees a thorough mulching with it; and though that was one of the dryest seasons ever known, not a tree thus treated was lost; while those not thus treated, as invariably died. Some with whom I have conversed object to chip manure, on the supposition that it breeds worms; but I am not aware that my trees have been more subject to the attacks of borers, or other worms, than those not manured.

Yours, most respectfully, G. SMITH.

Ronald, Feb. 16, 1857.

[We cordially endorse Mr. Smith's ideas of the value of chip manure for trees and orchards. It forms an excellent mulching, and has the effect which he claims, of protecting trees from drouth.]

**HAY—ESTIMATING WEIGHT BY CUBIC MEASURE**—It is stated by those who have repeatedly tried it, that a mow of English hay can be accurately estimated in tons, by getting the cubic contents and allowing for a well-compacted mow or stack, 700 cubic feet for a ton. Of a mow that has stood through the winter, it will take 800 cubic feet of the top for a ton, for about one-third of the depth; and 700 feet for the next third; and 600 feet for the bottom of the mow that is twelve or fifteen feet deep.

### Foreign Seeds—Dioscorea.

EDITOR MICHIGAN FARMER: Dear sir—Nearly all the public prints lately are advising farmers to cultivate the Chinese sugar cane—I am anxious to try

the experiment, and with that object in view, write to ask if you can inform me where and how I can procure the seed.

Some of the foreign seeds sent out by the patent office, are an acquisition, but many of them do not amount to much. I make it a rule to give all I can get a fair trial. The best cabbage and turnips I ever raised, were from seeds sent from the patent office; others I have found to be worthless. I received last spring six packages of different kinds of garden seeds, but not one ever came up. Last spring, one of my neighbors got up a club to send to Mr. Prince, for a case of the *Dioscorea batatas*. I got one about the size of a common garden bean, which cost me \$1.17 (We had the worth of our money in fun after the package was received.) Well, I planted mine on the top of a mound carefully prepared, tended and watered it through the season, and after the vines were killed by the frost in the fall, went out one day to dig my potatoes. I followed the stem down eighteen or twenty inches, and there, lying horizontal on the hard pan, was one potato about eight inches long, and one and a quarter in diameter, in shape and color very much resembling a sweet potato. I put it up carefully in a box of dry sand, and set it in the cellar. Under all the circumstances, I am well satisfied with the result thus far, and think it may prove a good investment.

Very respectfully, yours,  
Little Prairie Ronde.

R. J. HUYCK.

[Mr. Emery, of Chicago, has notified us that he has a supply of the true seed of the Chinese sugar cane. Great care must be observed with reference to the seed of this plant. It is of a kind that readily hybridizes, and may be easily spoiled by an intermixture with the common broom corn. M. T. Gardner, of this city, will have some in a short time. We learn he has ordered it from a reliable source. So have the Messrs. Penfield.—Ed.]

### Draining, Ditching and Farming, in Livingston County.

ED. MICHIGAN FARMER.—*Dear Sir:*—While on a recent trip through the counties of Washtenaw, Ingham and Livingston, I called on our old friend H. Norton, of Marion, Livingston Co., and spent a few hours very agreeably in looking over his farm, and examining his stock. Mr. N. is one of the most extensive and thorough going farmers of this section of the county. His farm consists of over six hundred acres, mostly burr oak plains under a good state of cultivation. Mr. N. recently purchased of the State a hundred and sixty acres of "Swamp land," through which, and a portion of his other low land, he has cut one of the finest ditches I ever saw. This ditch is six feet wide at the top, four feet at the bottom, three feet deep, and over a mile in length; as straight as an arrow, every tree and stump on the

line of the ditch being grubbed out. The soil of this swamp is a black vegetable mould, extending in many places to the depth of six feet. When it is once cleared and brought under cultivation it will make one of the finest meadows in the State. Leading into this ditch are several under-drains from adjoining fields, which were discharging surface water copiously. Mr. N. has some ten or twelve horses and colts, among which are several very fine animals. He has recently imported from the east a small flock of Southdown sheep, mostly ewes, several of which had fine lusty lambs running by their sides. These sheep were obtained from the flock of J. D. Patterson of Chautauque Co. N. Y., and for size, symmetry, and purity of blood, will compare favorably with any in the State. Mr. N. informed me that he had been offered eight dollars a head for his lambs next fall to take to the New York market. I noticed among his other stock a pair of fine Suffolk pigs sent to him from the east. His orchard consists of eleven acres of young thrifty trees, mostly grafted. Mr. N. is an enthusiast in farming, but his health is failing him and he is desirous of selling his place. A rail road through this section of the country would add greatly to the value of the land, and present indications point strongly to the early construction of such a road.

Respectfully, J. S. TIMBITS.

Plymouth, March 1857.

### Shade and Forest Trees.

Could I head this communication in large letters with "One Million Dollars Reward," to that farmer or cultivator of the soil, who would point out to the people of Michigan the mode of enhancing the value of their property ten times that amount, I should at once enlist the attention of all the readers of your valuable journal, and Yankee science, wit and enterprise would at once enter into competition for the reward.

As the "Almighty dollar" and ledger rule the world, or rather the action of men, I propose to say a few words to the cultivators of the soil, on the means of enhancing the value of their property to an incalculable amount, by giving their attention to the subject of saving and cultivating forest and shade trees, and I cannot better introduce this subject, than by the following extract from the *Rural New-Yorker*, by a correspondent writing from the southern tier of counties in that State:

"The great complaint through all this region is the want of water. Streams and springs and wells that were never dry before, dried up the past year, and the volume of water in the rivers is sadly reduced. This complaint will ultimately become permanent. The clearing up the forests over so large a surface will necessarily open out to the sun and wind regions which have heretofore retained their moisture through the season, affording thereby a

reservoir for both supplying the springs and the atmosphere with water. As our prevailing winds are from the west and south-west, and blow over land and not over water, they lose their moisture long before they reach the Western States, and becoming thus dry winds they impart no benefit in a dry season, but rather aggravate the evil by creating a more rapid evaporation where there was too much already. We apprehend that dry seasons may be looked upon hereafter as the rule, aggravated more and more by the clearing up of the little wood land which now remains. If farmers would, with one accord, plant all their waste plains with yellow locust or other good timber, some alleviation of the evil might be looked for. But unless something of the kind is done, we are as certain of dry seasons as we are that they are to come."

Who, among the "old settlers" of Michigan cannot see and feel the force of this argument. Fifteen or twenty years ago, when our cultivated fields were surrounded by forests, who ever heard of a failure of the oat crop from drouth, or the freezing out of the wheat crop, by the rain and sleet forming a coating to prevent vegetable respiration?

Farmers now discuss the subject of sowing wheat among the standing corn, and allow the stalks to remain through the winter, to protect it from the influence of the weather. This protection is needed on account of the absence of forest and shade trees. Had they trimmed up the "grubs" along the fences, and left a few clusters over their fields, they need not discuss semi-artificial means to protect their crops. They deliberately wage a war upon nature—play the vandal—and then resort to some wonderfully scientific experiment to repair the mischief they have occasioned by neglecting to give attention to the first principles of agricultural economy. Not only this, if nature attempts to recover—if her recuperative energies begin to develop themselves in producing new trees, the same persistent feeling to keep her down is followed that characterized her early destruction. Every bush must not only be cut down, but plucked up, and to this extent it is carried by many farmers, that not even a tree is left to protect their cattle from the merciless rays of a summer sun.

Although some astronomical reasons may be adduced for the very marked change in our seasons, yet as I am no "weather prophet" I propose to speak of such changes only so far as they are perceptibly produced by clearing up the country.

If we wish to improve our agricultural condition, and develop the fullest capacity of our soil for productiveness, we should turn our attention at once to the utility and necessity of saving our shade and forest trees. Along every highway—on the west and north sides of our fields, the second growth of trees should be as carefully trimmed and preserved as an orchard. Besides their influence upon the air, moisture and electricity, they are really ornamental, and every man of taste (to say nothing of science) would



willingly pay a much higher price for a farm thus ornamented than for an adjoining one where no such taste is displayed.

As to the influence of shade, take a familiar illustration. An old garden, enclosed, with forest trees set around it, and currant bushes and shrubbery through it, the ground will remain comparatively moist in a dry season, and produce vegetables in abundance, provided always, it is worked as a garden should be. Take the centre of an adjoining field, with no fences, trees or shrubbery to protect it, but the land of an equal quality, and while the "garden" rewards the laborer, the field garden will scarcely pay its tillage, besides the absence of all the small fruits which the garden produces.

Last summer many portions of our State were excessively dry, and many of the summer crops a failure. At this point (Jackson) on the Grand River, where many of the forests remained from necessity, on account of the wet character of the soil, we had frequent showers, and no apparent suffering for sufficient moisture for vegetation; while at Concord, a distance of fourteen miles, and from this place south for a great distance, there was but little rain until after the crops were past recovery.

History, as well as our own experience, is full of useful lessons on this subject. Portions of old Spain, once as productive and fertile as any country in the world, have become sterile and barren, on account of the destruction of their trees.

The following extract of a letter from Purser Griswold, written from Porto Maya, one of the Cape Verd Islands, offers us living testimony of the effects produced by the destruction of the trees:

They have not had much rain here this winter and quite a famine is anticipated in all of the islands should the drought continue. These islands afford one illustration among many, of man suffering through his own improvidence. When first discovered, they were covered with forests and vegetation, gentle rains nourished the soil; but they were soon stripped of their forests, and as the trees were cut down, vegetation decayed and withered away, the clouds ceased to water the earth, and the islands, with the exception of a few valleys, have become as it were a baked and crusted rock. It is well known that trees exercise a powerful influence upon the formation of rain in all countries, but more especially in the tropics where water is as indispensable to fertility as food and warmth is to the human system. Humboldt is said to have been the first one who drew attention to the consequence of destroying trees; instances are common in other parts of the world where streams and fountains have dried up because the trees about them were cut down, thus accelerating evaporation, and destroying the great agent of the earth's moisture, and giving a new significance to the words of the sweet old song,

"Woodman! spare that tree!"

The soil of these islands is of a peculiarly porous nature, requiring for vegetation a constant supply of moisture, and trees, from their low temperature, as conductors of moisture and preventives of evap-

ation, facilitate the supply, while their roots and fibres, penetrating the soil, prevent its being washed away by sudden rains, but in their absence the earth has become so encrusted from exposure to the sun that the atmosphere seems to grow less humid every year—the rain glides from the earth when it falls, as if it were glass—in fact the soil acts as a repellant to all moisture. A writer upon the manners and customs of Spain, in alluding to this subject says: "the Castilians have of old a singular aversion against trees as being the means of attracting and giving shelter to birds who would peck the corn. After having long since stripped the country of its trees, the Castilian instead of creating nurseries for their restoration, has such an abhorrence for everything of the kind that he will even prevent the establishment of them along the high road, by injuring those which government has been at the expense of planting there. In consequence of their proscription in the interior of Spain, it has been remarked, that the soil, scorched by a powerful sun, with no trees to moderate its force or attract humidity, has gradually lost its streams and fountains, of which nothing now remains but empty ravines to mark the forgotten source of former fertility."

Need I say more to induce our agriculturists to make a beginning to repair the mischief already done. It is not too late to commence a good work, and if with the coming spring any one would throw aside the grub hoe, and use the pruning knife along the highways, fences and all suitable locations, I think in a few years they will have the satisfaction of knowing that they have contributed more to the general wealth and prosperity of the State, than by any other means of agricultural economy they could pursue.

W. T. HOWELL.

Jackson, Jan. 1857.

### Caked Udder.

The spring season is that part of the year when many cows are very liable to have caked udder. We therefore commend to the attention of our readers the application of tincture of arnica as a wash, which the Connecticut *Homestead* states has been found to be a remedy. One of the subscribers to that journal says "that he had a cow last season that came from the pasture with her bag swollen and very hard, in such severe pain that she would not allow any one to touch it, but gave evidence of being in the most excruciating agony. She was held, and her udder bathed with cold water sometime, without producing any effect, and other usual applications were resorted to; finally, knowing the effect of tincture of arnica on pain with the human subject, he brought some and applied some of it to the bag. The cow ceased struggling, and almost immediately gave evident manifestations of pleasure, allowing the swollen and hard mass to be rubbed and kneaded. After again applying the arnica and again rubbing, a complete cure was effected. In a few days she regained her milk and is now in as good case as before.



## Horticultural Department.

### How to Select, Take up, Prune, and Transplant Trees.

#### CHAPTER III.—TREES OF LARGE SIZE.

For the purpose of securing an early show of fruit, it is sometimes esteemed desirable to transplant trees of large size. In doing this it should be understood beforehand, that the labor and expense of safe removal increase in a ratio more than commensurate with the increased age of the tree.

Large trees should never be selected for transplanting, unless they are entirely healthy, and vigorous; as the shock of removal will be very likely to develop any latent disease, while the more vigorous the plant; the sooner it will be able to recuperate.

Such trees, like men of mature age, have their habits formed, which cannot be easily changed. It is urged by some planters, with much apparent reason, that the bark of the trunk, and large limbs of old trees, become adapted to the influence of the sun, winds, &c., to which they are subjected, and consequently, that when removed, they should be replaced in the same position with respect to the points of the compass. For the same reason, a tree can never, with safety, be removed from a sheltered to an open exposure; although artificial protection, kept up till the tree has fully recovered, may be made to obviate the difficulty.

Trees, in the process of growth, first exhaust the soil in their immediate vicinity; after which, rootlets are pushed out to greater distances in search of the necessary pabulum; while the large roots nearer the trunk, are nearly destitute of fibres, and merely serve to convey to the tree the nourishment taken up by the remote rootlets. It follows, therefore, that, to remove a tree successfully, we must dig about it at such distance as shall include, at least, a large share of the fibrous roots. It is usually considered desirable, if not necessary, with large trees, to remove them with a ball of earth about the roots, to prevent the drying, displacing, or injuring of the fibres. This may be very conveniently and effectually done, by choosing the winter, when the frost will retain the earth firmly in its place. In this case, the bottom of the hole in which the tree is to be placed, must be well covered with a layer of rich earth, or compost, mixed up with water, so as readily to accommodate itself to the tree when placed in position; while, at the same time, it will supply the roots with nourishment when most needed.

The following process has the advantage of being adapted to trees of the largest size, and to any season of the year:

A strong frame is provided, of such size as to include the whole body of roots, in their natural posi-

tion. A suitable trench is dug around the tree, of such depth as to reach below the roots. The frame being placed in said trench, the workmen then proceed to undermine the tree at one side, placing planks underneath as they proceed, which are confined to the under side of the frame. This process is continued until the entire frame is underlaid with plank. The tree is then firmly stayed, if necessary, to prevent swaying; when the whole is raised, bodily, placed upon a conveyance provided for that purpose, with the tree still upright, and removed to the desired situation. The writer is assured that, in England, large collections of rare and valuable trees, of the largest size, have been removed by this, or a similar process, a distance of several miles, in the height of the growing season, without suffering the slightest apparent check. For such trees as we usually wish to remove, an ordinary wagon with the reach removed, with a simple box of two inch plank strongly put together, would doubtless suffice.

When trees have been removed, as above, with their roots undisturbed, no extra pruning will be necessary; but, in all cases where the roots have been shortened, the knife should be used unflinchingly. It is safer to err by pruning too much, than too little. In the pruning of a tree, there is occasion for the exercise of much discrimination. If the centre of the tree is crowded, it should first be made sufficiently open, by taking out the smaller twigs, or misplaced branches. Having done this, if more pruning is necessary, instead of *trimming up*, as is too often done, let it be effected by cutting back the leading branches; and, especially, such as incline to run out too far, and disfigure the head of the tree.

In setting out such trees, it is especially important that they be set no deeper than they originally stood; and all bruised, or broken roots, should be smoothly cut back to the sound wood, to encourage the formation of fresh fibres.

Trees thus removed, even with the best care usually bestowed upon them, are seldom out of danger, before the second or third year. The failure of the usual supply of sap during dry, hot weather, sometimes occasions the scalding of the bark; and frequently invites the depredations of the borer, who, too often, ruins the tree, before we become aware of his presence. A very effectual safeguard against both these dangers is, to scrape off the moss and loose, rough bark, and give the body and larger limbs a coating of soft soap, or rather weak lye, well rubbed in. This checks, without entirely preventing, the evaporation from the surface, while it is an effectual veto upon the operations of the borer. With young trees, whose bark is still tender, it may be safe to reduce the soap, and apply it more frequently. With older trees it should be applied in June and again in August or the beginning of September.

In all cases, but especially with trees of large size,

a liberal use of mulch will largely increase the probability of success, and if the roots have been much injured, or even entirely ruined, the tree may frequently be saved by keeping the bark constantly moistened with water, until a fresh supply of roots is produced. This may be done by binding straw, or something equivalent, about the body and larger limbs, which will retain the moisture applied from time to time.

An eastern pomologist, some years since, received a lot of plum trees of rare varieties from Europe, with the roots entirely dead. They were shaved off close to the stump, and the trees planted—the gardener remarking that he might as well plant his walking stick. They were kept constantly moist with water, and a very large share of them recovered.

T. T. LYON.

*Plymouth, March 1857.*

### The Hotbed and its treatment.

Last month we recommended that Radishes, Lettuce, Seed Onions, Cabbage seed, for transplanting, should all be sown, during the first week in March. If they have been duly taken care of, these vegetables will all now be growing finely. The bed, however, ought to be watched, so that the plants may have air. The bottom heat causes them to grow with rapidity, and to promote this growth, they must have a full supply of water, which should be showered upon them at least twice a day, and it may be found necessary, sometimes, to give it three times, whenever the plants are seen to be growing, also, they should have a good supply of air. They should not be exposed to sharp, cutting winds, but whenever, during the day, the temperature is moderate enough to have the top of the frame off, let it be lifted off, so that the plants may have plenty of light. Plenty of air is of the utmost consequence, for without it, in the crowded limits in which the plants are grown, they are apt to spindle up in slender, blanched stems, totally without strength to support or develop a good head, or leaves for their own growth, and they dwindle and wither at the first touch of the sun or of sudden change of atmosphere. In such a bed Cauliflowers and Broccoli, are vegetables which may be started amongst the very first. These plants when transplanted from the hotbed, should be set out in a well sheltered bed, that has been made both deep and rich with the best old rotten cow manure. McIntosh, in his Book of the Garden, says that all the Cabbage tribe of plants, such as Cabbage, Kale, Cauliflowers, Broccoli, &c., cannot have a soil that is too deep or too rich. All these plants are improved by a slight dosing of the soil with lime, and a slight topdressing of salt. The same authority states that excellent crops have been produced where seaweed has been used as a fertilizer, and the cause is owing chiefly to the salt. The

transplanting of all vegetables from the hotbed, should be into rich mellow soil, so that the growth may be checked as little as possible. The vegetables to be transplanted first, will necessarily be the Lettuces, and the Cabbages; Onions and Radishes, will be used from the bed, as fast as they get ready for the table.

Where a bed is made 12 feet long, a division of it should be kept for the purpose of starting Melons, Cucumbers, Egg plants and Tomatoes. Amongst the Melons, Skillman's fine netted, and the Green Nutmeg, are varieties which are as choice as any. The Early Frame is a good variety of the Cucumbers. The large Purple Eggplant is the only variety that is used for the table. Of Tomatoes, either the Large Red, or the Large Yellow may be sown, according to the taste of the cultivator. In growing these plants, the cultivator must have some idea of what he will do with them. The Tomatoes and Eggplants, of course, are only to be grown until they can be set out without fear of being cut off by the late frosts. But Melons and Cucumbers may be grown for the purpose of fruiting early in the hotbed, or for the purpose of transplanting. Where they are to be transplanted, we have seen it recommended that the seeds should be set in squares of sod turned up. The roots of the Cucumber or Melon plant clinging to the sod, it can be lifted out without injury to the plant, as they are liable to be injured by being disturbed. This plan is a good one; in a bed 4 feet by 6, forty-eight squares of sod, six inches each way, would only take up half the bed, and would certainly afford enough hills for an early crop.

Among the uses to which we recommended the hotbed to be applied, there is none in which it will be found more satisfactory than the flower department. As soon as the early Cabbage plants have been pulled out, and the onions have been cleared away, rake the vacant spots over, and get in all the annual flower seeds that it is thought proper to sow. Of these we name the following, all of which may be allowed to grow in the hotbed until they are a foot in height, and then be set out into a border or bed, or wherever wanted. About the middle of April is early enough to sow these seeds. They may be sown in drills in the bed, each drill labeled, and from five to six inches apart. When the seeds are sown, the bed should be kept close until the plants begin to sprout through the soil, then water and give plenty of air, sheltering them well at night.

The list we should select for this purpose would be the Globe Amaranth, which makes a very handsome flowering plant, about two feet high, and will cover a circle of two and a half feet in diameter. The Princes Feather, is a variety of the same plant, only more showy.

The double flowering Balsams, height about two feet. Plant three or four of them in a cluster.

The *Cacalia*, or Scarlet Tassel flower, is a slender plant, and from two to three of them may be set together, when transplanted.

The *Coreopsis*, is a showy yellow flower, of which two or three plants may be put together, and they should have some support, or they will trail with every shower.

The White and Three Colored *Gflias*, should also be planted in clusters.

Where a vine is wanted to run on strings, the *Ipomæa* are necessary; but the seeds are delicate, and they must have the advantage of the hotbed.

The *Lupins* may all be transplanted, with the aid of the trowel, and their flowers will repay an care.

The *Nigella* may be set in single plants; it bushes out a good deal, and wants as much room as the *Globe Amaranth*.

The *Phlox Drummondii* grows low and makes a pretty plant in a bed, or in large clusters by itself.

The *Portulacæ* are all fine, and transplant easily, forming a beautiful border, or outside edging for circles, or even when allowed a bed for itself, it is a brilliant forenoon ornament in any dooryard, and till late in the fall.

The *Scabious* transplant well, and may be put in clusters of three to six plants.

All the *Stocks* do best when started under cover, and then set out.

The *Marigolds*, *African* and *French*, furnish longest flowerers of all the annuals, and they do well when started early.

The *Zinnia*, is another long flowering plant, which is brilliant in color.

The *Asters* also may be started, and if transplanted with care, they will do well.

The *Petunia*, also, although growing well in the open ground, will come into flower nearly a month earlier.

To those above named may be added the *Clarkias*, white and rose colored, the *Celosia*, or *Coxcombs*, the *Schizanthus*, the *Agratum Mexicanum*, the *Didiscus*, the *Argemone*, and several others.

The hotbed also affords the cultivator the means of starting his or her *Dahlia* roots, early enough to get them into flowering condition by July, instead of waiting till August or the early part of September, before a bloom can be coaxed out of them, and no garden however small can do without them, as a part of its autumn glory.

In giving these names, we have confined our list to that of good showy flowers, easily cultivated, and the seeds of which can always be procured. There are other seeds that are needed for the flower garden, such as the biennials, but we shall treat of them when we tell you, next month, how to arrange your borders.

### New Fruits.

The American Pomological Society have recently published a report of a committee on the examination of new varieties of fruit, from which we condense the following:

*The Catawissa Raspberry*.—This is a fine, ever-bearing variety, producing large red berries, of very good quality; is wonderfully productive, and worthy of cultivation.

*The Titus Peach*.—Large in size, yellow in flesh, red next the stone; flavor, luscious, and pronounced "best" in quality. Ripens from middle to last of September.

*The Rebecca Grape*.—This new grape is pronounced a very superior fruit, of sterling merit. Bunches of fair size and very compact. Skin thin, semi-transparent, of a greenish white color, tinged with amber; flesh very juicy, melting without being pulpy; flavor rich, saccharine and vinous, with a peculiar luscious aroma distinct from that of any other grape. Ripens middle of September.

*Wilmington Grape*.—A variety of native growth; fruit yellowish green; quality pronounced "best." Ripens last of September.

*Canadian Chief*.—A grape, so like the *White Sweetwater*, that some of the committee pronounced it the same. Produces a large bunch of green grapes, of pleasant surfaced flavor. This variety is said to be very productive and very hardy, growing and ripening its fruit in the open air near Hamilton, C. W.

*Archer Grape*.—Quality "very good." Originated at Philadelphia. Not recommended for northern cultivation.

*The Mcister Apple*.—A Pennsylvanian apple, below medium size, of "very good" quality. Ripens first of October.

*The Christiana Apple*.—A beautiful apple grown near Wilmington, Del. Medium size, flavor pleasant, luscious. Quality "very good." Ripens in November.

*The Ritter Pear*.—Small in size, but flesh fine, melting and buttery, with the full Seckel aroma. Quality "best." Is like the Seckel.

*The Davis Pear*.—Is a seedless variety, classed as "good." It grows without seeds.

*The Frankford Pear*.—This pear is of medium size, of an exceedingly rich and delicious flavor, with fine flesh. It is pronounced a decided acquisition.

*The Wilmington Pear*.—Is a seedling of the *Passe Colmar*. Of medium size; flesh fine in texture, melting and buttery; flavor rich and saccharine. Quality "best." Ripens in September.

*Ontario Pear*.—Resembles the *Wilmington*.—Originated at Geneva, N. Y.; is classed as very good in quality. Ripens last of September.

*Huntington Pear*.—Ripens middle of September; is of less than medium size; was originally found



growing wild in the woods. Its quality is "very good."

**Church Pear.**—Commences ripening about the middle of July; is of a mild, pleasant flavor, and of "very good" quality. The original tree was raised by an old Huguenot settler, and is nearly one hundred years old. Supposed to be synonymous with the Clark Pear of Connecticut.

**Parsonage Pear.**—Large in size, a constant and steady bearer. Fruit of "good" quality, flavor vinous. Ripens last of September.

**Selleck Pear.**—A Vermont pear, of "very good" quality; in flavor resembles the Bartlett. Size large, and sometimes very large. Flesh rather coarse in texture, buttery. Ripens about the beginning of October.

**Watermelons.**—Of these the following four are commended as being the "best" in quality, and superior to the Mountain Sweet, which has deteriorated: the *Clarendon*, *Souter*, *Ravenscroft* and *Bradford*. *Odell's Large White* is commended for its size, productiveness, and long keeping qualities.

### Peas, Early and Late.

Peas may be planted on any good dry soil at the earliest moment after the surface is thawed out enough to give earth sufficient to make the furrow in which to sow them. Of the varieties which we would recommend to sow, the first would be the *Early Kent*, the *Dwarf Blue Imperial*, and the large *White Marrowfat*. These three varieties, if all sown on the same day, will give a complete succession of this desirable vegetable. The *Early Kent* is very prolific and the earliest of all the pea tribe. By the time that is used up, the *Dwarf Imperial* will be found ready for table use; and as soon as it is used up, the *Marrowfat* will be found ripe enough to use. There is a practice known to some pea cultivators, called stopping, that is pinching off the terminal bud, so that the pea makes no farther growth in the branch that is stopped. This causes the plant to throw out side branches and to become much more bushy. The practice is as soon as the tall growing kinds of peas have got to be about two feet high, the growing branches are stopped and all the side shoots that are thrown out are stopped in the same way, as soon as they have made three joints. This stopping is carried on until it is desirable to have the peas flower, for they will not flower whilst this stopping is going on. Peas which are thus treated are not sown thick, but each seed pea is dibbled in six inches apart in the drill, thus saving at least five-sixths of the seed, or making one quart go as far as five sown in the ordinary way, whilst the produce is increased nearly fourfold, and of a much better quality. Wherever plaster can be easily had, the peas ought to have a good sprinkling of it as soon as they are two or three inches high. The new varieties of seed peas

are legion. About three years ago the London Horticultural Society directed Mr. Thompson to make a trial of all the reputed varieties he could find, and he sowed not less than two hundred and thirty-five sorts enumerated in the seed list. Out of the whole he reported only twenty-seven as being really useful, and afterwards he reduced even that number to eleven. These are, 1st, *Prince Albert*, 2½ to 3 feet high; 2nd, *D'Auvergne*, 4 feet high; 3rd *Dancer's Monastery*, 4½ feet high; 4th, *Bishop's New Long Pod*, 2 feet high, a very abundant bearer, and giving a long succession of pods, characterized as one of the most valuable sorts for small gardens; 5th, *Fairbeard's Surprise*, 5½ feet; 6th, *Victoria Marrow*, 5½ to 6 feet, pronounced one of the very best peas; 7th, *Bedman's Imperial*, 3 feet, peas large, and a prolific variety; 8th, *Flack's New Large Victory*, 3 feet; 9th, *Knight's Tall Marrow*, 6 to 7 feet, one of the very best of the large varieties; 10th, *Fairbeard's Champion*, 5 to 6 feet high, one of the best of the wrinkled marrows; 11th, *Knight's Dwarf Marrow*, 3 to 4 feet, peas large and sugary.

The nourishing quality of the pea ought to be more generally understood than it is. Compared with bread, meat and other vegetables it will be seen that it is superior to them all.

100 lbs of Peas contain of nourishing matter,	93 1/2 "
" Dwarf Beans, "	92 "
" Garden Beans, "	89 "
" Wheat bread, "	80 "
" Butcher's meat, "	85 "
" Potatoes, "	25 "
" Carrots, "	14 "
" Cabbages and Turnips, "	8 "

This table is worth studying, and suggests whether field peas would not pay better than oats as feed for horses.

### About joining Bees together.

**MR. JOHNSTONE,** Dear sir:—Having a little leisure, I thought I might write you a few lines on bees, as you know that is my hobby. Now, people generally like to write about things wherein they have been successful, though it is my opinion that knowledge may be gained from the recital of unsuccessful operations. To begin, I think that it was Swammerdam who wrote that in the fall of the year, when bees had done working, he took the bees from one hive and put them into another hive, doubling the bees in that hive, of course; and he says, reasoning thus: The more mouths, the more meat needed. I fed them till I had given them enough honey to winter two swarms separately. They did very well in winter, and to my surprise, when I weighed them in the spring, they had not eaten over one pound of honey more than a single hive. He farther adds, I tried next year three hives put together, that is the bees of two swarms or hives taken out and put into another hive, and by this means tripling the bees in one hive. The next year he quadrupled them. In all these

cases, the bees did proportionately better than single hives, but such is not my experience, and I have tried the plan largely. The last time he quintupled them, when, he says, by their numbers, they kept up a continual singing through the winter, and by their early swarming and extra making of honey, rewarded him well for his pains.

Now, sir, this looks very well on paper—but let us see how it will work in fair and fertile Michigan where my possessions lie.

I have tried doubling, trebling and quadrupling bees, and it is perfectly true that they altogether will eat very little more than will a single hive alone. I think it was four years ago, I quintupled four hives with some trouble and apd care. That is, I took the bees from sixteen hives and put them into four. I weighed them carefully, and in the spring I did so again. Two of them had eat in the interval twenty-three pounds of honey apiece, the other two about twenty-one pounds each, while in the same space of time the single hives had eaten from sixteen to twenty-two pounds each. In the summer, not one of all the four hives did as well as single hives on the same bench beside them.

I have tried the experiment of joining swarms in the fall till I am satisfied, and have found it profitable to double them when, 1st. An old hive (I mean one that was at least a year old) had overswarmed itself. If you have bees to spare put them together. 2d. If you should have a weak young swarm, they may be doubled advantageously, taking care at the same time to feed them if they need it till they have feed enough to winter an ordinary swarm.


If hives that are intended to stand the winter, have enough of honey to winter them, with an ordinary quantity of bees, and if the queen is not very old or unprolific, it is at least as well not to double them; but if the queen is very old or unprolific, or one that lays nothing but drone eggs, then I would double the bees, taking care to kill the useless queen two days before I hived them. Pray excuse my bad writing as nobody can write grammar with such a pen as I have.

Yours with respect, UNCLE JOHN.

South Nankin, Jan. 1857.

### Wash for Trees.

We have always found, says Hovey, for our trees, when infested by insects, a good thick solution of whale oil soap, scrubbing the stems first with sand and water, if badly infested, and afterwards applying the soap with a painter's brush, upon every limb where a louse or scale is to be seen. This should be done now, before the trees begin to grow, as it is a more difficult operation when they are in leaf.

 A young farmer in Illinois wishes to know if fence posts will last longer by being charred before setting? To this we say, yes.

## The Household.

*"She looketh well to the ways of her household, and eateth not the bread of idleness."—Proverbs.*

EDITED BY MRS. L. B. ADAMS.

### Long Ago.

BY MRS. L. B. ADAMS.

Long ago, when I a dreamer,  
By the April brooks went straying,  
I but saw the op'ning blossoms,  
I but heard the breezes playing.  
Pressing oft the springing mosses,  
Where had slept the winter's snow,  
I could feel no thorns beneath them,  
In that blissful long ago.

Long ago, when half awakened  
From that idle spring-time dreaming,  
I but saw the summer splendor  
O'er life's sparkling waters beaming.  
Twining then Hope's fairy garlands  
Roseate in their summer glow,  
Could I think of blight or darkness  
In that radiant long ago?

Long ago all dreaming vanished—  
Died the spring-time blossoms tender;  
Long ago the autumn shadows  
Fell upon that summer splendor.  
I with weary steps am toiling,  
Where life's darkened stream moves slow,  
And like withered leaves around me  
Lie the hopes of long ago.

### A word of Advice.

Spring is a season which tries the energy and patience of farmers' wives and daughters, especially of those whose husbands, fathers, and brothers think that no work nearer home than that in the fields and barn yards belongs to them. There are such men living, though, we are glad to say, they are not so common now as formerly. They cannot be troubled with "doing the chores," and consequently upon the women and girls of the family falls the burden of milking the cows, rearing the calves, nursing sickly lambs, feeding the pigs, raising chickens and working the garden. We have known many housewives, who from having been subjected to such labors and the exposures incident to them, instead of continuing the healthy, active, cheerful women they were when married, have, in a few years, become confirmed invalids, racked with rheumatic pains and consumptive coughs.

But, thanks to the interest recently awakened among farmers in regard to the improvement of stock, they have taken the matter more into their own hands; and now, among all enterprising and progressive men, the care of calves and pigs has come to be of as much importance as the culture of the wheat and corn fields. The excitement about poultry, too, took many a man into the hen-yard who

never before considered eggs or chickens worthy of his notice, except when they appeared on the table. And the healthful stimulus given to the horticulturist and gardener, by our agricultural exhibitions, has exalted gardening into a manly occupation. Thus in many families the rougher out-door burdens have been taken upon the stronger shoulders made to bear them, leaving woman more free to do justice to herself and family in her own proper sphere—the household. But in many others, the old customs still prevail. The father and sons rise early enough to feed their teams before breakfast, and then sit around impatiently waiting for the morning meal, while the mother or sister may be in the muddy cow yard, or scuffling with half a dozen greedy calves to the accompaniment of the squealing pigs, whose cries may have penetrated the ears, but do not move the feet of their masters to their relief. "Mother will see that they are fed," is the secret thought of those beings in the form of men, as they swallow their own food, and then hurry away to the fields to be out of the way of such disagreeable noises as mother's scolding, the fretful complaints of the girls, and the squealing of hungry pigs.

If there is one thing more than another for which farmers' wives should be thankful, and which they should try by all means in their power to promote, it is the spread of agricultural knowledge. Nothing more than this will contribute to their domestic comfort. It teaches men that their greatest interest lies in taking the best care of everything, and that no animal worthy of being kept on a farm at all, is of so little consequence that it cannot be made a source of pleasure and profit. No reading farmer will sacrifice the pleasure and profit to be gained by improvement, for a few hours of daily idleness, nor will a thinking man suffer his wife to spoil her temper, ruin her health and make all about her unhappy, by obliging her to perform duties for which neither her strength nor sex are fitted.

We would not have women deprived of all out-door employments. No farmer's wife or daughter, who loves her garden flowers, her yards and shrubbery, would thank us for advancing such an idea; we only speak of such as are unbecoming for her and injurious to her health, and which at the same time, can be more easily and profitably attended to by men.

If any of our readers are so unfortunate as to have such husbands and brothers as those above described, we would suggest to them a surer remedy than fretting or scolding. *Get them to read agricultural papers.* Let them know what other men are doing, and what they may do. If they will not read, get the papers and read to them. If their old habits are too thoroughly confirmed to be broken in upon by reading, begin yourselves and put in practice, as far as you can, some of the suggestions for improvement.

Let them see that there is something to be gained by a change; excite a spirit of emulation with some of your neighbors—anything to break up the old routine, to get an idea started—and our word for it, your labor will not be lost. Try it, you who are tired of being cow-boys and swine-herds, whose yards are out of repair, whose gardens are half cultivated, whose fire wood is never cut till it is wanted to burn, and who have grown heart-sick and weary of this retrograde progression in farm experience.

This is the season when your trials are greatest, and now is the time to look about for a remedy. Try this one.

### A Letter from Ohio.

MR. JOHNSTONE, Sir:—I have read in the February number of the *Michigan Farmer*, a letter from Sarah E. Brunson, whose acquaintance I should like to secure, first, because she speaks sensibly on common sense things; and, second, because my mother thinks she was acquainted with her parents in Cornwall, Vermont.

Friend Sarah, I am two years older than you, but that need make no difference if we sympathize in the general pursuits of life. I have been to a Union School this winter, where there were six hundred scholars in attendance. It was a very pleasant school. I took three studies. There is a College in this place, and about one thousand students attend.

My parents moved from Cornwall, Vt., to Oberlin Ohio, twenty-three years ago. The place was entirely new, and as is common in new countries, they saw some hard times at first. Father learned by experience that he knew little about farming, and determined to make some improvement, if possible. To effect this, he began getting agricultural books and papers to read, and by making a practical use of them, soon began to improve in farm management. The result is, he now has a farm of eighty acres, laid out in small lots, with a lane passing through the center, from the buildings. He has an orchard of three hundred trees, of the best varieties of fruit, for all seasons of the year; with pears, peaches, quinces and cherries in abundance. Across the front end of the farm, is a row of sugar maple trees. Elm, butternut and black walnut trees are scattered in different places, which add to the beauty.

Father adopts the plan of deep and thorough tillage, with heavy manuring. He does not let burs or briars of any kind grow on the farm, and the large thistles are all cut down when they commence blossoming. He has often taken the premiums at our county fairs.

Friend Sarah, if you could be here we would take a walk to the barn and fields and see the twenty head of Hereford cattle, with their clean white faces,



(and they are first rate milkers,) the Paular Merino sheep, Suffolk pigs, the geese and hens, all of which receive their share of attention. We would take a view of the apiary, with its hives of different patents, which have stood for twenty years, with all the improvement that science and practice has thrown upon the subject for the past few years.

Hoping we may hereafter continue our correspondence, I will close.

Yours, respectfully, **LUCY C. KINNEY.**  
*Oberlin, Ohio.*

### Hints to Housekeepers.

**A GOOD WAY TO MAKE A MOP.**—Get an old rake handle and a piece of wood two inches through and eight inches long. Bore a hole through the bit of wood and put in your handle; take a strip of leather two inches wide, and long enough to go from one end to the other, and nail at each end; then draw in your rags and you are all right.

**TO COOK TURNIPS.**—A good way to cook turnips, is to slice them thin and fry them in fat, as you would potatoes.

*Oscola.*

**A. C. BRIGGS.**

**A NEW WAY TO MAKE YEAST.**—Take as much pulverized saleratus as will lay on a dime, the same quantity of salt, and a tea-spoonful of sugar. On these three articles pour a pint of boiling water. When sufficiently cool, so as not to change the nature of the flour, stir in as much as will make it into a stiff batter. The vessel containing this batter must be placed into another vessel containing water quite warm, but not so hot as to cook the flour in the least, and the whole must be kept standing in a warm place until the batter nearly doubles in bulk, which will take about six hours. This yeast may then be added to flour enough to make two good-sized loaves of bread, mixed with warm water, and a tea-spoonful of salt if liked, placed in the pans and left standing in a warm place a short time before baking.

**RUSK.**—One pint of milk, one teacup of yeast, mix it thin; when light, add twelve ounces of sugar, ten ounces of butter, four eggs, flour sufficient to make it as stiff as bread; when risen again, mould and sponge it upon tin.

Our young correspondents, both girls and boys, have favored us with an unusual number of letters this month, and some very good ones, too. We sympathize with the pleasures, the labors, and the misfortunes of which they speak, and thank them warmly for the interest they manifest in the *Farmer*. Among them, we notice particularly the one from Lucy C. Kinney, of Ohio, which we publish, a very good one for a beginner from Mary A. Allen, of Paris, Kent county, and one from Jane M. Hanna, of the same place. We are sure that Jane, notwithstanding her misfortune of being a cripple, has a mind which, if rightly cultivated, will prove a blessing to herself and others. D. L. Atkins, of Clyde, J. E. S., of Vergennes, and several other young farmers, have written of their occupations and their interest in farm improvements. Lettie Bowen, of Lima, has done very well for the first trial; we

may find room for her enigma one of these days, but have so many on hand, that we fear some will have to wait a good while. Some who have sent in their puzzles forgot to give the answers with them, and some have forgotten to give us their names.

Will R. H., of West Berlin, send the answer to his first enigma?

We have a long enigma, on some medicinal subject, written with pale, red ink on blue paper; it would be impossible for the printers to read it, if we should give it to them, so we shall not.

The mistake in Alfred Wellington's enigma was made by himself; it is exactly according to copy. The lake is Erie, and should read 7, 8, 6, 7. Carelessly written, blotting scrawls, and letters and enigmas in pencil marks go into the stove at once. Let your motto be, in writing as in all other things, "Whatever is worth doing at all, is worth doing well," and never let a written sheet go out of your hands that you would be ashamed to look upon again.

### Miscellaneous Enigma.

I am composed of 18 letters.

My 2, 4, 8 grows in the forest. My 11, 9, 8 is a daily visitor. My 10, 14, 5, 12 is what we all possess. My 1, 13, 12 is found in the Arctic ocean. My 11, 9, 1, 7, 8 is a very useful employment. My 17, 14, 10, 12, 8 is indispensable. My 6, 7, 18 is what all should do. My 13, 9, 6 we could not live without. My 11, 1, 12 is what all must do. My 7, 1, 13, 12 is much esteemed by the Chinese. My 8, 4, 2, 13, 12 is an ignorant person. My 16, 9, 6, 5 is a kind of grain. My 18, 9, 1, 15 was a man's name. My 6, 1, 15 is useful in the pantry. My 17, 16, 4, 5, 12 is a quadruped. My 3, 9, 2, 13, 12 is a pastime. My 11, 14, 16, 7 is part of a house. My 7, 9, 1, 2 is an element. My 8, 7, 16, 2, 12 is an insect. My 17, 4, 6, 6 is in the imperative mode. My whole must be practiced by all who wish to succeed.

J. E. S., of Vergennes.

### Historical Enigma.

I am composed of 25 letters.

My 1, 11, 14, 8, 18 is one of the United States. My 8, 11, 1, 7, 21, 1, 4, 8, 10, 23, 9 was one of the Presidents. My 16, 5, 2, 8, 22, 14, 21, 1, 11, 5, 14, 23, 8 was an officer of the Revolution. My 12, 7, 13, 14, 21, 22, 11, 21, 21 was a governor of Michigan. My 23, 5, 7, 6, 4, 8 is one of the territories. My 4, 8, 18, 14, 20, 2 is a county in New York. My 5, 2, 14, 21, 17, 8 is a river in Michigan. My whole was an American officer in the late war with Mexico.

Ortonville.

E. M. ORTON.

### Charade.

My first and second form a participle; my third is a weight; my whole is a city in the United States.

Victor.

SARAH E. B.

### Answers to Enigmas in March No.

**Acrostical Enigma**—CORNFIELD. **Miscellaneous Enigma**—NAPOLEON BONAPARTE. **Historical Enigma**—GENERAL ANTONIO LOPEZ DE SANTA ANA. Answered by M J Thayer, Novi; Sarah E Brunson, Victor; H S Sleeper, Kalamazoo; H H Humphrey, Saline; Izora B Rawson, Quincy; Alonzo Proctor, New Hudson; Frank Walker, Farmington; J N Allen, Kalamazoo; Frankie C McAllister, Locust Grove; S W V, Coldwater; Addie H Mowry, Ann Arbor; Marion A Harwick, Antwerp; R H., West Berlin; Delina, of Troy.

## MICHIGAN FARMER.

ROBERT F. JOHNSTONE, EDITOR.

DETROIT, APRIL, 1857.

### To Our Friends, Agents and Subscribers.

We feel it to be our duty to call upon the agents of the *Farmer* to forward to us all subscriptions already paid in, as with the present month the time expires which was fixed upon as that for which the advance rates would be received. We would also ask all subscribers to remit to us as promptly as possible, their subscriptions for the present year. We cannot be expected to publish such a periodical as the *Farmer* without a great outlay on paper, printers' labor, payment for use of presses, and engravers' bills, and also some remuneration for our own work. There is now outstanding, and due the *Farmer*, over \$5000, a moiety of which would be of material aid to us, these very hard times. We hope to hear from our friends promptly, and in such a manner as will encourage us to drive ahead, without looking back while in the furrow.

During the latter part of the coming month, we hope to be enabled to visit our friends in Novi, Farmington, Plymouth, and other places in that vicinity, as well as to respond to some loud calls from Coldwater and Laporte; and in return we hope to gain some new friends, as well as some encouragement from the old ones.

### Farm work and farm economy.

In this number of the *Farmer* will be found a communication from A. Y. Moore, Esq., on a subject of great importance to farmers. The difficulty experienced by all who have large farms, in procuring help, is one that has caused quite a number of really good and enterprising farmers to offer their farms for sale. One of the complaints made is that the farmer himself and his family are made really the servants and drudges to supply the wants of the hired help, and that as a general rule the greatest part of the work has to be done directly under the eye, or by the hand of the farmer himself. The owner of the farm has no let up, and is more confined than if he were the hired man himself. In other professions or business, there is a class of men called foremen, who supply the place of the employer. But in the farming community there are very few such men to be had. It must be recollected, also, that farmers themselves do not afford much encouragement for the education of such men, for the wages given are not usually such as to retain them. Again, lands are usually cheap enough as yet to entice good reliable men to employ their energies in improving a farm of their own. The railroads, within the past ten years, have opened routes to such

vast quantities of cheap but good lands to the west, that the very best of the agricultural community have been thinned out so that all experienced workmen in farm work have become scarce.

We commend Mr. Moore's rotation to the attention of farmers, though we think it a pretty severe one for even the richest of land. Corn, oats and wheat twice to only one year of clover, would be very exhausting on any ordinary soil, and we think in the end another year in grass, making the rotation equal to three wheat crops in eight years instead of seven, would pay better.

While Mr. Moore grows sixty acres of wheat, he has eighty acres in what might be termed feeding crops, namely corn, oats and clover. We would be pleased to know the amount of stock which is kept on the farm, and how much it is calculated, of these feeding crops, it takes to sustain the working department, and how much is sold, in the shape of cattle, sheep, horses and hogs. For instance, the 60 acres of wheat furnish at least 75 tons of straw. The oats and corn 60 tons more of straw and stalks. The clover and hay at a moderate estimate, 40 tons more. Here it will be seen are 175 tons hay, straw and cornstalks, without at all counting the oats and corn, or the produce of the 20 acres which lie around the house and barns, and which ought to yield something, as well as the 20 acres of clover pasture. The wheat, we all know, is the money crop, but here are some other products, of which we would like to have a man of experience and judgment like Mr. Moore, give our readers an account of their actual returns. We consider that upon the economical management of these products, that is upon their right application in manufacturing them into beef, veal, mutton, wool, butter, cheese and pork, manure and labor, depends not only the value of the wheat crop itself, but also the real profits of the farm. Hence we seek information upon the subject of the most practical kind, and we believe Mr. Moore can give it.

**SORGHUM SEED.**—*Ed. Farmer:* Having become satisfied from a somewhat extensive reading on the subject, that there were earlier varieties of the SWEET SORGHUM than that received from the Patent Office, or that its early maturity was owing to acclimation, I some time since wrote to my brother, who resides in Europe, to obtain, through his French correspondents, some of the early maturing varieties, for my own planting; having also become satisfied from undoubted evidence from various sources that the introduction of this plant will be followed by the most successful anticipations.

By the last European steamer I received a letter informing me that I will be in receipt of Sugar Cane Seed, through Messieurs Vilmorin, Andrieux & Co., Paris, to sell on commission. This seed, I am assured, will be afforded some cheaper than the enormous prices now prevailing—coming from a source to insure genuineness—of a variety maturing a month earlier than that procured at the Patent Office, while its canes contain an equal amount of saccharine.

As near as I can now ascertain, the price of a package sufficient to plant one-fourth of an acre will be about nine shillings. Any one sending me nine shillings will be entitled to a remittance of a package of the seed by mail, with directions for planting, cultivating, &c., as soon as it arrives from Europe.

There is quite a difference in the maturity of plants produced from seed distributed by Government from its importation of 1854 and of 1855. The importation of '54 was raised from seed imported into France from the north of China, in 1850, and grown at Verrieres, in 1854; while the importation of '55 was from seed reputed to have grown from that brought from South Africa by Mr. Leonard Wray, of London, both substantially the same, except the former is much earlier in maturity. Prof. Newcomb, of Elgin, Ill., writes me that he planted the two importations side by side, and the former was so much in advance of the latter, in bloom, as not to intermix.

Respectfully,

Jonesville, Mich., March 23d, 1857. JNO. T. BLOIS.

**THOSE SEEDS.**—In answer to numerous inquiries I would say, I have no interest in the *Farmer* further than every good citizen of Michigan should have, viz., a subscriber and contributor. My object in circulating seeds among its subscribers is to promote the good cause of agricultural improvement, by proving the fact that those who subscribe for a good agricultural paper always get their money back, and that a few postage stamps, expended for samples of choice seeds, will eventually prove the advantages of "little land well tilled."

Plant Flour Corn, May 1st, in hills 8 feet each way, two stalks for each hill.

Crowder in hills, 2 ft. each way, two plants to the hill.

Pumpkin, 4 ft. each way, one vine to each hill.

Barley, in drills one foot apart, the seed 3 inches apart in the drills, April 15th. A rich soil for all except the crowder, which need not be so rich.

The result of your experiments will be thankfully received by

D. D. TOOKER.

Napoleon, Jackson Co., Mich.

**APPLES.**—Mr. J. D. Yerkes, of Northville, favors us with specimens of apples from his orchard. The varieties he left with us were the Northern Spy and Steele's Red. We have never seen more perfect specimens of the Northern Spy than these. Large, sound and smooth, without a blemish. The flavor of these apples was good, and now, on the tenth of March, they were as fresh as though just taken from the tree. Mr. Yerkes considers the Northern Spy one of the best varieties for western cultivators; after it comes the Steele's Red, and then the Roxbury Russet.

**PEABODY'S SEEDLING STRAWBERRY.**—Mr. C. A. Peabody, whose new strawberry is now offered by subscription, writes us that he has ample stock enough to give to those who double their original subscription three times the number of plants originally offered. That is, for ten dollars he will send three dozen of plants. Subscribers in the Northern States are requested to state the precise time they wish to receive their plants. The first week in April would be the proper time to mail them for this State.

Mr. Hedges, of Cincinnati, has invented a mill for the purpose of crushing the stalks of the Chinese Sugar Cane. It is constructed so that it can be moved easily from place to place.

**MICHIGAN STATE AGRICULTURAL COLLEGE.**—*Postponement of Opening.*—Circumstances render it necessary to postpone the opening of the above Institution, from April 1st, as heretofore announced, till Wednesday, the 13th of May next.

By order of the State Board of Education.

IRA MAYHEW, Secretary.

Lausling, March 18, 1857.

We have called attention, in the last number, to the Shingle Machine which is advertised by H. K. Parrish. It is a most excellent machine. All who wish to make inquiries concerning it, may address the editor of the *Farmer*, who is now prepared to give answers relative to purchase of rights and machines. Farmers who have black ash swales, will find it a most useful article for converting their profitless timber into shingles of considerable value.

Messrs. B. & C. Haines, of Elizabeth, New Jersey, have shipped for California a lot of Shorthorns. Should the animals arrive, they will be the first of this breed which has gone to that State.

### The Markets and their Prospects.

The news brought by the late steamer is such as has not been received from Great Britain for the last three or four years. It says, in effect, that there is now on hand in that country a supply of breadstuffs sufficient for the next three months. This is the usual time when, if a scarcity is to be felt, it is generally pretty well known what will be its extent. The crops also are reported as looking unusually well. This, of course stops any hope of impaired rates arising from a large export demand, and the conclusion may be drawn that breadstuffs generally will not rise in price. The demand for good white wheat flour for consumption at home is likely to be sufficient to keep that quality at the rate it now pays, which in this market is \$5.50 a bush, 62½¢ per bbl. The New York prices for that kind of flour range from \$6.75 to 7.25. The expense of transportation of a barrel of flour to New York is as follows:

Freight to Suspension Bridge.....	35c
" to New York.....	82½¢
Commission.....	12½¢
Cartage.....	4¢
Cooperage and Insurance.....	8¢

\$1.37

Wheat is not firm at \$1.20; but as navigation is not yet open, and there is but little offering for sale now, it cannot be stated what it will be worth during the next month.

Wool is in quite an unsettled state, owing to the going into operation of the new tariff, the effects of which cannot be fully known until it is seen how it will affect the importation, and whether it will really encourage manufacturers. We shall have something to say on this subject next month. At present, wool pays good prices, ranging for half and three-quarter blood equal to 40 cents per pound here. The prices given in this market for other articles of produce are as follows:

BREADSTUFFS AND GRAIN.		SEEDS, PLASTER, SALT, &c.	
Flour, bbl.....	\$5.00 a 5,62½	Clover per bush.....	\$6.50 a 7.00
Cornmeal, 100 lbs.....	1.37½ a 1.50	Timothy.....	2.75 a 3.25
Buckwheat, 100 lbs.....	3.50 a	Red top.....	1.75 a 2.00
Wheat, bush.....	1.20 a 1.25	Blue, grass.....	8.00 a
Corn, bush.....	1.24 a	Orchard grass.....	3.00 a
Oats, bush.....	0.40 a 0.42	Granddusk plaster, bbl.....	1.50 a
Barley, per 100 lbs.....	2.50 a 2.60	Sand River.....	1.50 a
BEEF, MUTTON, &c.		N Y Plaster.....	1.13 a
Beef on foot.....	\$3.50 a 4.50	Sandusky water lime, 150 a	
Beef dressed.....	5.50 a 6.00	N Y do.....	1.31 a
Sheep, dressed per lb.....	0.45 a 0.06	Salt fine bbl.....	1.75 a
Sheep on foot.....	3.50 a 5.00	do coarse.....	2.25 a
Hogs pr lb 12½, pr 100.....	8.50 a 9.00	MISCELLANEOUS.	
Turkeys.....	1.00 a 1.50	Apples per bush.....	62½¢ a 75
Chickens, pair.....	37½¢ a 0.50	White Hen, half bbl.....	4.50 a 5.00
Geese.....	37½¢ a 0.50	White beans per bush.....	2.00 a
Eggs per doz.....	15 a	00 Sheep pelts.....	75 a 1.00
Butter, per lb fresh.....	24 a	26 Hay, Timothy, ton.....	9.00 a 12.00
do firkin.....	17 a 19	Common.....	7.00 a 8.00
Cheese per lb.....	9 a 11	Honey.....	20 a 25
		Potatoes.....	75 a



### The late Hon. Lewis F. Miller, of Moscow.

The newspapers announced to us that Judge Miller, of Moscow, Hillsdale county, died on the fourteenth of February, of general debility. We chronicle his death with regret—in fact, something more than ordinary regret—with sorrow for the loss of an old, valued, and sincere friend. Judge Miller was one of the oldest settlers in Hillsdale county, and we have heard him relate how at an early day in the history of Michigan, he prospected through the southern part of the State, until he came across Moscow plains, when he made his claim, settled upon it, and became a pioneer to lay the foundation of a State. Mr. Miller was originally a resident of Seneca county, New York, from whence he removed in 1831. He was a son-in-law of Dr. T. C. Delevan, and held at various times, from 1832 up to 1850 important public offices, amongst which was a membership in the legislative council of the territory, member of the Constitutional Convention of 1835, Associate Judge of the county, and some others. In all these positions, Judge Miller was distinguished for his probity, uprightness, and love of justice. No party feelings could bias him, or twist that straight forward judgment with which he was endowed, so as to permit him to consent that any should suffer. Judge Miller's sister was mother to the Hon. Wm. H. Seward, and his son is called after the present well known and highly esteemed Senator from New York. The old man has descended into the "bourne from whence no traveler returns" full of years and ready to meet his Maker. The last time we had the pleasure of taking him by the hand, was at the county fair of Hillsdale county, at Hillsdale, in 1855. He had there the handsomest and best pair of oxen on the ground. Spare, and almost shrunken with age, he was full of the fire of youth; and after we had shaken hands with him, nothing would do, but we must go and look at his cattle, with which he had plowed, and put in with his own hands, some twenty acres of wheat. The great oxen were there, and when they heard the old man's voice, they looked round upon him, as though they knew him as their best friend, their great calm eyes seeking him evidently with pleasure; and he—he knew them, too—he unyoked them, with the alacrity of youth; he watered them, and fed them—and we witnessed the companionship, and loved, honored and respected the good old man—the kind hearted and skilful aged pioneer, for his simple and pure manners, and the honest pride he took in his employment. He has gone now, where the weary are at rest. He has left his fields, his oxen and his crops. He did not regret the call, for he was ready. The papers say he died of general debility, but we know that the old man's time was come. No sickness, no wasting disease, no sudden affliction summoned him. The three score

and ten years that limit the life of man had been reached in honorable and useful employment, the summons of Azrael was heard, and it found him in his place. He has answered it, and the place he has filled so long is vacant. His end was peaceful, and all felt who knew him that they could say of him when his end was near:

\* He shall so hear the solemn hymn, that Death  
Has lifted up for all, that he shall go  
To his long resting place without a tear."

### Valuable Stock.

By reference to the Stock Register, it will be seen that we give the pedigrees of some valuable Short-horn stock, which is owned at Ypsilanti. This stock we have seen and examined. The bull, *Lenox*, we are fully prepared to endorse as one of the most valuable animals that has been brought into this State; and we feel certain he will bear the inspection of connoisseurs and judges. He is not a large animal for his age, but in completeness of form, compactness, fineness of bone, symmetry, and evidence of good constitution and mildness of disposition, he will bear inspection, and we do not care who looks at him. In one or two particulars, perhaps, some points might be referred to as capable of improvement. He is not claimed to be perfect, but when we get a shorthorn bull amongst us that is more perfect, we are willing to travel 150 miles on any reasonable road to take a look at him. *Lenox*, besides, comes of a milk stock, and has been selected with the design of improving the dairy qualities of our milk cattle. We like his appearance well, and think that Mr. Uhl has made a most excellent selection. The stock of Mr. Kelly is well known as very select. Mr. Kelly is known as one of the Presidents of the N. Y. State Ag. Society, and a warm friend of agriculture, and though very choice in his selection of cattle, he is better known as a breeder for his own satisfaction, than for the purpose of selling at high rates. His stock is in great part from the same family as that of Mr. *Lenox*, who imported two famous cows, *Red Lady* and *Daffodil*, in 1840, and also a bull of superior quality, known in the herdbook as *King Charles II*.

While at Ypsilanti, we also saw the very handsome cow *Julia*, owned by A. H. Ballard, Esq. This cow gives evidence of a good constitution, is of large size, deep red in color, and is altogether a good animal. Her calf, by the Duke of York, is a very thrifty creature and promises well.

Mr Saunders also showed us a handsome grandson of *Old Black Hawk*, a colt four years old, which gives great promise of becoming a valuable horse. He is black in color, is nearly 16 hands high, lofty in carriage, and has a good free gait. This colt is out of an imported English thorough bred mare, by a son of *Old Black Hawk*.

We also saw Mr. Turner's handsome *Black Hawk*, which took the prize for speed at the last State Fair. He is in fine condition, and looks and feels well. He is a kind, well tempered horse, of indomitable courage, and with large free going mares, with some blood in them, ought to raise a fine race of colts.

# Michigan Stock Register.

## Shorthorns.

**No. 29.—LENOX**, a bull. Color, light roan, with dark head and neck. Bred by Wm. Kelly, of Ellerslie, Dutchess county, N. Y. Now owned by David M. Uhl, of Ypsilanti, Mich. Calved May 4, 1854. *Dam*, Lizzie. *Sire*, Prince Albert. (852 Am. HB.)

*dam*, Lizzie by Wallace, [179 Am. HB.]

*g. dam*, Betty, by Sultan, (164 Am. HB.)

*g. g. dam*, Diana, by Leopard, [88 Am. HB.] [4213 Eng. HB.]

*g. g. g. dam*, Matilda, by White Jacket, (5647 Eng. HB.)

*g. g. g. g. dam*, Heart, a thoroughbred cow, bred by the late Thomas Hollis, of Blythe, Eng., who brought her to the United States.

Wallace, the sire of Lizzie, was a roan bull, bred by Ezra P. Prentice, of Albany, N. Y., out of Fairfax, a bull got by the celebrated bull Sir Thomas Fairfax, (5196 Eng. HB.), out of Sally, a cow sired by Leopard. [88 Am. HB.]

Prince Albert, the sire of Lenox, is a red and white bull got by Prince, (181 A. HB.,) (6325 E), out of Celeste 2d, by Pontiac, (125 Am. HB.,) she by Harlem Comet, 71, out of Celeste. Prince was a son of King Charles II, [4154, E. HB.] and his dam was Daffodil, imported by James Lenox of Netherwood, Dutchess county, N. Y., in 1840. Her pedigree is given in the Am. HB. as follows: [the figures all refer to the Eng. HB.] Calved in May, 1836. Got by Sampson (5031) out of Young Daisy, by Danby [1900], by the Wilkinson bull (2838), by Greatheds Gray Bull (3936), by Ellerton's Roan Bull (3708), by a son of Mr. Newby's (4562), by Charge's Gray Bull (872.)

Celeste, the grandam of Prince Albert, was bred by Thomas Addis Emmet, of New York, out of a thorough bred cow, White Lily, imported by him in 1834. We find the following note about her, at p. 153 Am. HB.: "Mr. Emmet writes—'the cow usually gives 33 down to 25 quarts of milk per day for several months after calving, on good pasture or hay, and sometimes a mess of sugar beets or Indian meal added. She is milked three times a day.'"

**No. 30.—QUEEN**, a cow. Color roan. Bred by Mr. Livingston, of Hyde Park, Dutchess county, N. Y.; now owned by David M. Uhl, Ypsilanti. Calved June, '58. *Dam* was a thoroughbred cow, called Queen, from the stock of Governor Morgan Lewis, of New York. *Sire* of Queen is Sir William [977, Am. HB.] a bull got by Wallace (179 Am. HB.), out of Comely, by Young Leopard (89 Am. HB.); Moss Rose (E. H. B., p. 704, vol. 5.), by Barden (1674 E.), Violet, by Young Colling (1843, E.); Violet by Remus (550, E.); Pink [vol 4, p. 569, E.] by Sedbury (1424 E.); Beauty by Hollings (2131 E.); Lingeroppper by Partner (2409 E.); Lady by Hutton's bull (2145 E.); Lingeroppper by Marske (419 E.); Lofty by R. Alcock's bull (19 E.)

**No. 31.—WHITE ROSE**. Cow; white. Owned by David M. Uhl, Ypsilanti, Mich. Calved April, 1850. *Dam*, a full blood cow out of Comely, got by Young Leopard (Am. HB. 88.). *Sire*, Rough and Ready, (179, Am. HB.)

*g. g. dam*, Moss Rose, by Barden, [1674 E.]

*g. g. g. dam*, Violet, by Young Colling, [1843 E.]

*g. g. g. g. dam*, Violet, by Remus [550 E.]

*g. g. g. g. g. dam*, Pink, by Sedbury, [1424 E.]

*g. g. g. g. g. g. dam*, Beauty, by Hollings, [2131 E.]

*g. g. g. g. g. g. g. dam*, Lingeroppper, by Partner, [24092 E.]

Rough and Ready is a bull bred by Mr. Kelly, of Ellerslie, Dutchess county, N. Y. Sired by Wallace [179 Am. Herdbook].

*Dam*, Betty, out of Sultan 164, a red and white cow, bred by E. P. Prentice, of Albany, N. Y.

*g. dam*, Diana, by Leopard [88 Am. HB.] ditto.

*g. g. dam*, Matilda, by White Jacket, [5647 E.] This cow was the mother of eight heifers in succession, and Mr. Allen, in the first volume of the Am. HB., says he saw this cow and her eight daughters at Mr. Prentice's sale in '45, and a finer exhibition of one family of Shorthorns has seldom been seen.

*g. g. g. dam*, Heart, already noticed in the pedigree of Lenox.

**No. 32.—PRIMROSE**. Cow; red and white. Bred by Mr. Lowrie, of Hyde Park, Dutchess county, N. Y. Owned by David M. Uhl, of Ypsilanti, Mich. Calved April 1851. *Dam*, Molly, a thorough bred Shorthorn, imported by the late Hamilton Wilkes, of Hyde Park. *Sire*, Rough and Ready, whose pedigree is given with that of White Rose, (31 Mich. Stock Reg.)

**No. 33.—JULIA**. Cow. A fine deep red. Bred by A. Eddy, of Toledo, Ohio. Owned by A. H. Ballard, Ypsilanti, Mich. Calved Oct. 3, 1853. *Dam*, Bertha. *Sire*, Kossuth.

*dam*, Bertha, bred by A. Eddy, Toledo, sired by the Duke of York, bred by M. L. Sullivan, of Columbus, Ohio, from the Duke of York, imported by the Ohio Stock Camp.

*g. dam*, Rose, a cow bred by Geo Renick, of Pickaway Co., Ohio.

Kossuth was bred by Samuel C. Lune, Hamilton county, Ohio. His dam was Lady Catharine, p. 190, Am. HB., a roan cow imported in 1838, by William Neff, of Cincinnati. His sire was Rufus, got by Aemon, 1606 E, out of Rosette, both imported by the Ohio Stock Co.

Julia now has a heifer calf named Josephine, which is sired by the Duke of York, above mentioned. This calf is red and white, and promises well.

Our friends in Monroe county must read and ponder on the communication of Mr. S. Barent. His suggestions are dictated by a desire to call attention to a very much neglected portion of the State, which is passed over as totally unworthy of the attention of those seeking for cheap lands near good markets. We think his views in relation to draining are correct, and there should be some general law in relation to drains, on some such principle as that which compels the opening of roads or of streets, or the laying down of sewers in cities. The health of a whole community may be endangered by the unwillingness of one or two men to bear their portion of the expense necessary to drain large tracts of marshes. The subject of draining is one which is becoming of more and more consequence every day.

An enquirer wants to know where he can procure apple seeds, pear seeds, and other fruit seeds, and also black walnuts, to sow for the purpose of growing stocks and trees.

**A PERFUMED BREATH.**—What Lady or Gentleman would remain under the curse of disagreeable breath when by using the BALM OF A THOUSAND FLOWERS as a dentrifice would not only render it sweet out leave the teeth white as alabaster? Many persons do not know their breath is bad, and the subject is so delicate their friends will never mention it. Pour a single drop of the BALM on your tooth-brush and wash the teeth night and morning. A fifty cent bottle will last a year. A beautiful complexion may easily be acquired by using the Balm of a Thousand Flowers. It will remove tan, pimples, and freckles from the skin, leaving it of a soft and rosy hue. Wet a towel, pour on two or three drops and wash the face night and morning. Shaving made easy, wet your shaving-brush in either warm or cold water pour on two or three drops of Balm of a Thousand Flowers rub the beard well and it will make a beautiful soft lather much facilitating, the operation of shaving. Price only Fifty cents.

Beware of counterfeits and imitators, none genuine unless signed by  
FETRIDGE & CO., Proprietors,  
For sale by all druggists. nov-6m New York.

**C. M. SAXTON & Co.,**  
AGRICULTURAL BOOK PUBLISHERS,  
140 FULTON STREET, NEW YORK.

HAVE just added to the number of books published exclusively by them, the following valuable works:

Waring's Elements of Agriculture.....	75
Dadd's Anatomy and Physiology of the Horse, plain plates, \$2 00	
do do do colored do.....	4 00
Dadd's Modern Horse Doctor.....	1 00
Coles' American Veterinarian.....	50
Coles' American Fruit Book.....	50
Schenck's Gardener's Text Book.....	50
Leuchar on Hot Houses.....	1 25
Breck's Book of Flowers.....	1 00
Bridgeman's Young Gardener's Assistant.....	1 50
Bridgeman's Kitchen Gardener's Instructor.....	50
Bridgeman's Fruit Cultivator's Manual.....	50
Bridgeman's Florist's Guide.....	50
Stansbury's Chinese Sugar Cane and Sugar Making.....	25
Hyde's Chinese Sugar Cane.....	25
The Cotton Planter's Manual.....	1 00

Sent free of postage on receipt of Price.

aplt

## COLUMBUS.

THE services of this valuable Trotting Entire Horse, are offered for the Spring ensuing at \$25 for the season.

Cards, giving times and places, are now published. Columbus is from the best and most direct Messenger strain of blood, and was bred by Smith Burr, of Comac, Long Island. His pedigree is as follows: Sired by Old Napoleon, out of a dam got by Engineer, (who was the sire of the celebrated Lady Suffolk,) her dam by Express, out of Old Express, imported. Old Napoleon was out of Young Mambrino, by a dam got by Commander. Young Mambrino was sired by Chancellor, who was out of Mambrino, by a dam got by Old Messenger. Commander was out of Commander, a son of Old Messenger, by a dam got by Light Infantry.

Address A. W. LEE, Detroit, or Erin, Macomb county, Mich. N. B.—For a full and particular description of the Horse, see last November number of Michigan Farmer.

## SEEDS! SEEDS! SEEDS!

THE Subscribers have on hand and for sale at wholesale and retail, a large and complete assortment of Garden, Flower and Field Seeds, obtained from the most reliable sources, both in this country and Europe. New, good and true to their marks. Farmers, gardeners and others in want of Seeds of almost any kind, can obtain from us those that will give entire satisfaction.

Catalogues may be had on application at our house, Monroe avenue, or by mail.  
M. T. GARDNER & CO.  
Detroit, Feb. 1857. mrt

## PLEASE TO READ THIS!

TO PERSONS OUT OF EMPLOYMENT.—Wanted, persons in every town and village, to circulate new and useful Pictorial Works. Book Agents, Farmers' Sons, everybody with a small cash capital, can make money by selling our books. Discount liberal Catalogues and all letters sent free to applicants. For full particulars address, post paid,  
ROBERT SEARS, Publisher,  
feb44 No. 181 William-st., New York.

## "CHINESE SUGAR CANE AND SUGAR MAKING."

NOW READY and sent free of Postage for 25 cents, and for 3 cents additional, enough seed to plant two square rods.

C. M. SAXTON & CO.,  
Agricultural Book Publishers,  
140 Fulton-street, New York.

aplt

## BOOKS FOR THE SEASON.

### FRUITS AND FLOWERS.

Sent Free of Postage on Receipt of Price.

Chorlton's Complete Grape Growers Guide, For the Vineyard, Cold Grapery and Forcing House.....	60
Allen on the Grape.....	
A well known and reliable work.....	\$1 00
Reemelin's "Vine Dresser's Manual".....	
For out-door Culture and Wine Making.....	50
Perser's New Process for the Culture of the Vine. Paper.....	25
Elliott's Fruitgrowers' Guide.....	
The latest work on Fruits.....	1 25
Coles' American Fruit Book.....	50
Eastwood's Cranberry Culture.....	50
Pardee on the Strawberry.....	50
Buist's Kitchen Garden.....	75
Buist's Flower Garden Directory.....	1 25
Breck's Book of Flowers.....	1 00
Bridgeman's Young Gardener's Assistant.....	1 50

Catalogues of all our Books sent free to any address.

C. M. SAXTON & CO.,  
Agricultural Book Publishers,  
140 Fulton-street, New York.

aplt

## DOCTOR HOOFLAND'S

CELEBRATED

## GERMAN BITTERS,

PREPARED BY

Dr. C. M. JACKSON, Philad'a, Pa.

WILL EFFECTUALLY CURE

## LIVER COMPLAINT, DYSPEPSIA, JAUNDICE,

Chronic or Nervous Debility, Diseases of the Kidneys, and all diseases arising from a disordered Liver or Stomach.

Such as Constipation, Inward Piles, Fullness or Blood to the Head, Acidity of the Stomach, Nausea, Heartburn, Disgust for Food, Fullness or weight in the stomach, Sour Eructations, Sinking or Fluttering at the pit of the Stomach, Swimming of the Head, Hurried and difficult Breathing, Fluttering at the Heart, Choking or suffocating sensations when in a lying posture, Dimness of Vision, Dots of webs before the Sight, Fever and Dull Pain in the Head, Deficiency of Perspiration, Yellowness of the Skin, and Eyes, Pain in the Side, Back, Chest, Limbs, &c. Sudden Flushes of Heat, Burning in the Flesh, Constant Imaginings of Evil and great Depression of Spirit.

The proprietor is calling the attention of the public to this preparation, does so with a feeling of the utmost confidence in its virtues and adaptation to the diseases for which it is recommended.

It is no new and untried article but one that has stood the test for ten years' trial before the American people, and its reputation and sale is unrivalled by any similar preparations extant. The testimony in its favor given by the most prominent and well known Physicians and individuals in all parts of the country is immense and a careful perusal of the Almanac, published annually by the proprietor, and to be had gratis of any of his Agents, cannot but satisfy the most skeptical that this remedy is readily deserving the great celebrity it has obtained. Principal Office and Manufactory. No. 96 Arch St., Philadelphia, Pa.

## GREAT CURE OF PILES.

CAMDEN, N. J., March 12, 1855.

DEAR SIR—It is with much pleasure I take this opportunity of informing you of the great benefit I have derived from the use of a few bottles of "Hooiland's German Bitters." For a number of years I have been sorely and severely afflicted with pain in the stomach, attended by attacks of the Piles, for which I tried a great many remedies, but without affording me any relief. Being advised to use the German Bitters, I did so, using in connection for the Piles, your Spikenard Ointment, and I now inform you that they have entirely cured me and resorted me to health, and I would advise all the afflicted to use your valuable medicines, &c.

Respectfully yours, MARGARET REPSHER.

No. 45 Plum Street, Camden, N. J.

Dr. C. M. Jackson, Philadelphia.

For sale by druggists and storekeepers in every town and village in the U. S. and Canada.  
Dec. 1856,—1 year.

## VALUABLE PIGS FOR SALE.

THE Subscriber will have for sale about the 1st of May, a fine lot of Pigs, of a cross between the Byfield and Suffolk breeds. They will be sold at reasonable rates, if taken at from four to six weeks' old. These pigs are bred from good stock.  
Address, E. HAMILTON, Royal Oak, Oakland Co., Mich. aplt

## 1856. FARMER'S WAREHOUSE. 1856 BURNHAMS & BURHALL,

Dealers in all kinds of Agricultural Implements, Garden and Field Seeds, Salt, Plaster and Water Lime.

Warehouse near Railroad Depot, BATTLE CREEK, MICH. [oct-12



# BLOODED HORSE BLACK HAWK BEAUTY.

COST \$2,500.

WEIGHS 1158 POUNDS.

A. HEALEY, PROPRIETOR.

This Horse was purchased in November last of Ira Gray, of Waterbury, Vermont, at a cost of \$2,500, and was raised by Sylvanus Douglass, of Chittenden County, Vermont.

## PEDIGREE.

Black Hawk Beauty was sired by Hill's Old Vermont Black Hawk, of Bridport, Vt., who earned for his owner over forty-seven thousand dollars without leaving his stable. His last season netted seven thousand dollars! Vermont Black Hawk was sired by Sherman Morgan; he by the original or Justin Morgan; he by True Briton; he by Morton's Traveler, [imported] among whose ancestors are found English Kelipse, Flying Childers and Godolphin Arabian. The dam of True Briton was De Laney's imported race mare.—The dam of Justin Morgan was sired by Diamond; he by the Church Horse; he by [imported] Wild Air. The dam of Sherman Morgan was imported, and a fast trotter. The dam of Vermont Black Hawk was a black mare from Lofty by Wild Air, among whose ancestors are found Godolphin Arabian, Flying Childers and Byerly Turk. The dam of Black Hawk Beauty was English Hunter, (imported.) He is half brother to the following celebrated trotters: Ethan Allen, the fastest trotting stallion in the world; Lancet, who has beaten the best time of Lady Suffolk; Black Ralph; Belle, of Saratoga; Lady Litchfield; Black Hawk Maid; Sherman Black Hawk; Ticonderoga; Lady Sherman; Prince Albert; Red Leg; Cleopatra; Nelly; Lone Star; Henry Clay; Flying Cloud; Flat; Black Hawk Chief; Champion Black Hawk; Sherman Belle; Don Juan, &c.

It will be seen by the above pedigree, that Black Hawk Beauty is descended from the best families of horses in Europe and America, and among his ancestors and near relatives are some of the fastest going stallions ever known. It is well understood that the horses known as the English Hunter, possess great style and speed, with extra powers of endurance. Old Black Hawk has been repeatedly upon the track, and was never beaten. Black Hawk Beauty trotted, when three years old, a mile in 2.52. Since then he has not been trained, owing to a wound upon the ankle.

## DESCRIPTION.

Black Hawk Beauty is seven years old, is a beautiful red chestnut, fifteen and a half hands high, and weighs, in good condition, 1163 pounds. In form he is long and rather rangy for the Morgan stock. He is exceedingly muscular, white his fine head, large, expressive eyes, large nostrils, long erect neck, capacious chest, round body, broad loins, short back, long and muscular quarters, deep and full flanks, broad, sinewy limbs, fine glossy coat, and large, prominent veins, give unmistakable evidence of a pure, high bred animal. In temper he exhibits gentleness. For intelligence, energy of character, ease and style of action, he has no superiors, and few if any equals. He was awarded the first premium at the last annual Fairs of Kalamazoo and Van Buren Counties, as a stallion of all work, and the first premium as foreign stock.

## TERMS.

Black Hawk Beauty will be kept at the stable of E. Landon, on Water Street, directly in rear of the Burdick House, from May 1st, 1857, to July 31, 1857, which will end the season, at \$25 the season. Insurance can be effected by contract. Five dollars in all cases to be paid when the service is rendered. Mares from a distance furnished good pasturage, and all reasonable attention given them. But accidents or escapes must be at the risk of owners.

A. HEALEY.

## FRANK.

THIS Young Horse is five years old the fifth day of May, next is black, 16 hands high, and from 1100 to 1200 pounds in weight—fine proportion and heavy muscle—well calculated for road, track or saddle.

Pedigree.—Frank was sired by Olcott Oscar, who was awarded the first premium at the Michigan state Fair at Ann Arbor, in 1850, and also first premium at the New York State Fair at Saratoga, in 1853, in foreign class, and premium at the National Fair at Springfield, Mass., the same Fall. Oscar trotted on the Cambridge course, in Fall of 1853, inside 3 minutes the turn round the track without fit or train.

Oscar was sired by the celebrated Ran horse, Oscar, who was imported into Tennessee in 1823; his dam by Messenger's Duroc; he by Wilks' Wonder. Frank's dam was a get of a son of Andrew Jackson; her dam a full blood Lower Canada Mare, of great strength and action; his colts have proved very fine.

Said Horse is the property of the subscriber, bred by himself, and can be seen at his stable in Jefferson, 3 miles west of Brooklyn, Jackson County, Mich.

F. J. RANDALL, Proprietor.

March 1st, 1857.

## SUGAR CANE SEEDS.

THE Messrs. Burnham & Co., of Batt's Creek, have on hand Sugar Cane Seed, put up in packages of 50 cents and \$1.00 each, which will be sent by mail when forwarded with 6 cents of postage stamps. They have also pure Wyandot Corn, and three varieties of imported peas. All these seeds are procured from reliable sources.

aplt

## FOR SALE.

I HAVE a few pure bred Shepherd Dog Pups for sale. Prices from \$5 to \$10. Also Buff Dorking Hen's eggs and Brooklyn, Jackson Co., Mich., March, 1857. R. D. PALMER.

IMPORTED STOCK, viz: Durham Cattle, Jacks, Jennets and Mules, South Down Sheep, and Chester White Pigs constantly on hand and for sale. SETH A. BUSHNELL. Hartford, Trumbull Co., Ohio, March 10, 1857. apft

## TREES AND PLANTS.

ALL kinds of Fruit Trees, large and small. Ornamental, deciduous and evergreen trees; Shrubby; hardy, perpetual and greenhouse Roses. A large variety of Verbena, among which are Kietz Defiance, Jack Reflection; 40 choice varieties Dahlias. These will be ready for delivery as soon as the season will permit.—New Rochelle or Lawton Blackberry; Falstaff and Red prolific Raspberry, very hardy; McAvoy's Superior Grapes; Lucy Fitch Seedling; Hovey's Seedling, and all Burrs' Seedlings; 8 rawe ries, White Grape Currant, by the dozen or hundred. Fertilizer de Palme, Victoria, Cherry, Red Grape do., &c. Myatt's Victoria, Downing's Colossal, and Hybrid vic Pie Plant; Asparagus roots, 3 and 4 years old; Cabbage, Celery, Tomato, and other kinds of plants in season. Herbaceous, perennial flowering plants of various kinds. Scarlet Geraniums, Rose Geraniums, and a general assortment of GREENHOUSE PLANTS.

For sale at wholesale and retail by

Detroit, March 23d, 1857. apl HUBBARD & DAVIS.

## PLOWS.

800 PLOWS, of all makes. Starbuck, Eagle, Steel and sub soil. Cultivators and Seed Drills. D. O. & W. S. PENFIELD, Agricultural Warehouse.

## OSIER WILLOW.

THE subscribers are general agents for Geo. J. Colby, patentee of the machine for peeling willow, and offer for sale Osier Cuttings of the best variety for Baskets and Hedges, or Line Fence, on the most reasonable terms, and will send circulars containing full information, free to all who will enclose to either of them a postage stamp.

CARMI OSGOOD, Westford, Vt.

REUBEN OSGOOD, Fremont Centre, Lake co., Ill.

P. S.—Packages of 5000 each sent from Chicago, for \$13 cash.

April, 1-1 month.

## CHINESE SUGAR CANE SEED!

WARRANTED PURE, at

D. O. & W. S. PENFIELD'S Seed Depot.

**THE GREAT ENGLISH REMEDY.**

SIR JAMES CLARKE'S

**CELEBRATED FEMALE PILLS!**

*Prepared from a Prescription of Sir John Clarke,  
M. D. Physician Extraordinary to the Queen.*

**T**HIS invaluable medicine is unfailing in the cure of all those painful and dangerous disorders incident to the female constitution.

It moderates all excess, removes all obstructions and brings on the monthly period with regularity. These Pills should be used for two or three weeks previous to confinement; they fortify the constitution, and lessen the suffering during labor, enabling the mother to perform her duties with safety to herself and child.

These Pills should not be taken by females that are pregnant, during the first three months, as they are sure to bring on miscarriage; but at every other time and in every other case, they are perfectly safe.

In all cases of Nervous and Spinal Affections, Pains in the back and limbs, Heaviness, Fatigue on Slight Exertion, Palpitation of the Heart, Lowness of Spirits, Hysterics, Sick Headache, Whites, and all the painful disorders occasioned by a disordered system, these Pills will effect a cure when all other means have failed, and through a powerful remedy, do not contain iron, calomel, antimony, or any other mineral.

Full directions accompany each package. Price, in the United States and Canada, One Dollar.

Sole Agents for the United States and Canada,

I. C. BALDWIN Co.,  
(Late J. Bryan,) Rochester, N. Y.

TUTTLE & MOSES, Auburn, General Agents.  
For sale in Detroit by J. S. CUTHBERT & CO., FARRAND & WHEATON, T. & J. BINGHAM, GEORGE B. DICKENSON & CO., E. C. TERRY, and in one Druggist Store in every town in the United States.

April 1st, 1857.

6m

"EVERY FARMER SHOULD OWN THEM."

**ALLEN ON THE DISEASES OF DOMESTIC ANIMALS.**

THIRTY-FIRST THOUSAND.

Price 75 cents, and sent free of postage on receipt of price.

"Its greatest worth, is as a 'complete Farrier.'"—Farmer and Mechanic.

"It ought to be in every family where Dairying is carried on."—Worcester Transcript.

"Worthy of a place in every Farmer's Library."—Jeffersonian.

"Just what is needed by every good farmer."—L. I. Farmer.

"A very excellent book on Domestic Animals."—Maine Farmer.

"A most admirable practical work for everyday use."—Index.

"The work ought to be in the hands of every Planter."—N. Orleans Delta.

"When such men as R. L. Allen take up the pen, something flows from it which does his fellow men good."—Iowa Advocate.

"Here is a Book for the million, written by a Gentleman of Science and Experience."—Newburyport Watchman.

**ALLEN'S (R. L.)****AMERICAN FARM BOOK.**

The American Farm Book; or, a Compend of American Agriculture, being a practical Treatise on Soils, Manures, Draining, Irrigation, Grasses, Grain, Roots, Fruits, Cotton, Tobacco, Sugar cane, Rice, and every staple product of the United States; with the best methods of planting, cultivating and preparation. Illustrated by more than 100 engravings. By R. L. Allen.

One of the most complete books upon American Agriculture that has yet been published. Price One Dollar. Sent free of postage. Address, C. M. SAXTON & CO.

split Agricultural Book Publishers, 140 Fulton st., New York.

**POLAND AND POTATO OATS.**

**R**AISED expressly for us, for Seed; Buckwheat, Barley, Broom Corn; also a general assortment of Grass Seeds. At  
\*p D. O. & W. S. PENFIELD'S Seed Depot.

**300,000 APPLE TREES!**

**W**E have on hand, and will sell for CASH or approved paper at short date:

**800,000** Apples of all the best leading sorts, grafted this winter @ \$3 per 1000  
Where \$100 of trees are taken, \$7.

**30,000** Hemlocks in prime order, from nine to fifteen inches @ 25 per 1000

**2,000** Lawton Blackberries @ 20 per 100

do do @ 3 per doz.

**10,000** Concord, Rebecca, Diana, Clinton, Northern Muscadine, Isabella and Catawba Grape Vines, at lowest prices.

A. FAHNESTOCK, Pres't Toledo Nurseries.

Toledo, O., Feb. '57. mar 2t

**THE SATURDAY EVENING POST.**

THE BEST WEEKLY PAPER!

SAMPLE NUMBERS FURNISHED GRATIS!

\$2 a Year. Twenty Copies for \$20.

Apply to the Publishers,  
March 2t

**DEACON & PETERSON,**  
66 South Third Street, Philadelphia.

**TO FARMERS AND GARDENERS.**

**T**HE Subscribers offer for sale 40,000 barrels of their

NEW AND IMPROVED

**POUDRETTE.**

Manufactured from the night-soil of New York city, in lots to suit purchasers. This article (greatly improved within the last two years) has been in the market for eighteen years, and still defies competition, as a manure for Corn and Garden Vegetables, being cheaper, more powerful than any other, and at the same time free from disagreeable odor. Two barrels (\$3 worth) will manure an acre of corn in the hill, will save two-thirds in labor, will cause it to come up quicker, to grow faster, ripen earlier, and will bring a larger crop on poor ground than any other fertilizer, and is also a preventative of the cut worm; also it does not injure the seed to be put in contact with it.

The L. M. Co. point to their long-standing reputation, and the large capital (\$100,000) invested in their business, as a guarantee that the article they make shall always be of such quality as to command a ready sale.

Price, delivered in the city free of charge and other expense—

One barrel.....	\$2 00
Two barrels.....	3 50
Five barrels.....	8 00
Six barrels.....	9 50

And at the rate of \$1.50 per barrel, for any quantity over six barrels.

A Pamphlet, containing every information, will be sent [free] to any one, applying for the same. Our address is—

THE LODI MANUFACTURING CO.,  
Office, 60 Courtlandt street, New York.

feb 4t

**LYON'S KATHAIRON**

**H**AS now become the standard preparation for the HAIR. Its immense sale, nearly

**1,000,000 BOTTLES!**

per year, attests its excellence and great superiority over all other articles of the kind. The Ladies universally pronounce the KATHAIRON to be, by far, the finest and most agreeable article they ever used. It Restores the hair after it has fallen out; Invigorates and Beautifies it, giving to it a rich glossy appearance, and imparts a delightful perfume. Sold by all dealers throughout the United States, Canada, Mexico, Cuba and South America, for

TWENTY-FIVE CENTS PER BOTTLE.

**HEATH, WYNKOOP & Co.,** Proprietors,

63 Liberty street, New York.

Manufacturers, also, of Perfumery of all kinds, and in great variety.

feb 6m

**PENFIELDS' TOOL & SEED DEPOT.**

**F**ARMERS call and look at our stock or Tools, Implements and Seeds.

Meat Cutters and Stuffers, Vegetable Cutters, Chain Pumps, Plows, Harrows, Churns, Cultivators, Cheese Presses, and an endless variety of Farming Implements, of the best manufacture, at

D. O. & W. S. PENFIELDS',

feb 6m

No. 103 Woodward Avenue, Detroit.

**HORSE POWERS, THRESHERS AND CLEANERS.**

**P**UTTS 8 and 10 horse, Emery's 1 and 2 Horse (tread) Powers. Pease's Excelsior Powers, Corn and Cob Mills, Corn Mills and Feed Mills, Flour Mills, Cross-cut and Circular Saw Mills, Leonard Smith's Smut Machines. D. O. & W. S. PENFIELD, feb 6m No. 103 Woodward Avenue, Detroit.

**SHAKER SEEDS, PURE!**

**A** COMPLETE and full assortment of their valuable and reliable Field and Garden Seeds, warranted of 1856 growth. Also, Wisconsin, Illinois, Ohio and Michigan Timothy, Red Top, Clover and Millet, at  
feb 6m 103 Woodward Avenue, D. O. & W. S. PENFIELD.

**DRAIN TILE!**

**W**E have constantly on hand all of Daines' Drain Tile.

feb 6m

103 Woodward Avenue, D. O. & W. S. PENFIELD.

**HENRY E. DOWNER.**  
**WOOD ENGRAVER.**  
 No. 53 Woodward Ave., (Over Dey's Exchange Office.)  
 DETROIT, MICH.

Engravings of Agricultural Implements, Views of Buildings, Animal Portraiture, Machinery, Vignettes, Bill Heads, Business Cards, Stamps, Seals, &c., &c. done on the shortest notice and in the best styles of the art, at New York charges.  
 P. O. address, Box 387. dec-tf.

**S. A. SPERRY.**

**MANUFACTURER** of Carriages, Buggies and Waggon, which are constantly for sale. Painting and Trimming executed with dispatch. Also Blacksmithing in all its various branches. All articles of work done to order Shop on Detroit St., Ann Arbor, Michigan. je '55:tf

**GILMORE'S PATENT  
 BEE HOUSE AND HIVE.**

PATENTED JUNE 5, 1849, PATENT EXPIRES JUNE 5, 1863.

THE undersigned has purchased the right for the counties of Eaton, Calhoun, St. Joseph, Branch, Hillsdale, Lenawee, Monroe, and Saginaw. Offers individuals rights in those counties with Book of directions for building managing, &c., for \$5.00. This plan secures swarms from being robbed: Comb is renewed once in three years. Feeding facilities, unsurpassed. Bees swarm out or go from hive to hive at the will of the manager. Superior inducements to clubs for town rights. Agents wanted in every township.

C. SMITH.  
 May, tf.

Vermontville, April 16, 1856.

**A. GILMORE'S  
 PATENT BEE HOUSE AND HIVE.**  
 PATENTED JUNE 5TH, 1849.

THE subscriber having purchased the right of GILMORE'S BEE HOUSE AND HIVE for the counties of

WAYNE, OAKLAND, AND MACOMB,

is now prepared to sell

**INDIVIDUAL RIGHTS**

with a book of instructions for building House and Hive, and the management of bees, for five dollars.

A liberal discount to clubs for town rights.

The plates and descriptions are plain, giving the length, width, and thickness of each piece of timber, so that any carpenter can build the house and hive from the book. With this Bee House and Hive, any individual can have the bees perfectly under his control, and obtain the surplus honey without the destruction of the bees.

A. M. BOWWELL.

Ann Arbor, March 20, 1856.

N. B. Agents wanted for selling right in every town in the above counties. April tf

**TOLEDO NURSERIES.**

WE offer the following splendid lot of Trees, Shrubbery, &c., in prime order, at the prices annexed, for cash or approved paper at short date. We not only can lift trees much earlier than in N. Y., but we beg to inform our friends that we have not been subjected to the extreme degrees of cold, which they have experienced the past winter, and which no doubt has again done its injury there.

50,000 Stand. Apples, 5 to 8 feet.....	\$90 per 1000
5000 or upwards.....	85 do
1,000 Dwarf Apples, 1 and 2 years old .....	\$20 to 25 per 100
5,000 Pears, dwarf, 1 year.....	20 do
do do 2 years.....	25 do
do do selected.....	55 do
3,000 Stand. Cherries, 5 to 7 feet five.....	18 do
500 or upwards.....	16 do
do do 1 year old.....	16 do
1,000 Dwarf Cherries, 1 year, very fine .....	20 do
12,000 Peach Trees, 1 year, vigorous growth.....	12 do

Plums, Apricots, Nectarines, Currants, Raspberries, Ornamental Trees, Evergreens, Roses, Dahlias, Shrubbery, Plants, &c., at the lowest rates.

A. FAHNESTOCK, Pres't

Toledo, O., Feb.

mr2t

Toledo Nurseries.

**SHORT HORN FOR SALE!**

THE undersigned offers for sale a cherry red premium BULL, two years old. The price is \$50. Address O. W. WILCOX, Mar2t\* Centreville, St. Joseph co., Mich

BROOK CORN SEED, King Phillip, Flower, Early Dutton and other varieties of SEED CORN, at PENFIELDS', feb 6m 103 Woodward avenue.

**STEEL CULTIVATOR TEETH.**

THE subscriber having purchased the exclusive right of manufacturing and vending **D. B. ROGERS' Improved Steel Cultivator Teeth**, throughout the north half of the State of Indiana and all the State of Michigan, except the counties of Oakland, Lapeer, Genesee, Calhoun, Kalamazoo, and Hillsdale, now offers to supply his district with said Teeth, made of the best quality of spring steel, and in the latest improved shape.

These Teeth are too well known to need any certificates of their usefulness. They have taken the first premium at every State and County Fair wherever exhibited.

For sale in every principal city and village throughout the above named district.

The subscriber has also purchased the exclusive right of manufacturing and vending **D. B. ROGERS' IMPROVEMENT IN THE WHEEL CULTIVATOR**, throughout most of the States of Michigan and Indiana. At the Michigan State Fairs in 1853 and 1854, he exhibited one of these Machines, filled with steel teeth, and received the first premium and a diploma. This Machine, filled with Rogers' improved steel teeth, is considered by all farmers who have used them, to be the best Wheel Cultivator in use, not only for preparing summer fallows and putting in grain, but for the cultivation of corn when planted in drills.

No farmer will dispute with the use of the above named farming implements who has any knowledge of their usefulness.

All orders for Wheel Cultivators, or Cultivator Teeth, filled on short notice.

CAUTION.—All persons are prohibited the use of these Teeth and Machines, in said district, unless purchased of the subscriber or his duly authorized Agents. Address,

T. A. FLOWER,  
 PORTIA, MICH.

April 1, 1856.

**THE EYES! THE EYES!!**

**DR. H. BIGELOW, OCULIST,**

(Office Room No. 9 Sheldon Block opposite Farmers' & Mechanics Bank, Jefferson ave., Detroit, Mich.)

Respectfully announces to the public generally that he is now engaged in treating the various diseases of the Eye, with much success. Many Certificates and recommendations might here be given, but such things are so common at this day, that it is deemed sufficient merely to say to those afflicted, come and SEE. His treatment is the same as that practised by the late Dr. George Bigelow. May, '56 lyr.

KETCHUM'S Patent Mowers, at Manufacturer's prices, adding freight, at Chicago Agricultural Warehouse and Seed Store. 204 Lake st., Chicago, Ill.

**TO INVALIDS**

LABORING UNDER AFFECTIONS OF THE THROAT OR LUNGS.

**DR. CALVIN M. FITCH;**

Formerly of 714 Broadway, N. Y., author of the Invalid's Guide, Consumptive's Manual, &c., having recently returned from Europe, would inform his patients at the west, and all interested in the announcement, that he will open on the 1st day of July,

**PERMANENT OFFICE**

At No. 459 Main Street, Buffalo, N. Y. where he may be consulted daily, (Sabbath excepted) from nine to five, for THROAT AND PULMONARY DISEASES, more particularly CONSUMPTION, ASTHMA AND CHRONIC BRONCHITIS, in the treatment of which a judicious combination of Remedial measures, the employment of Mechanical and Constitutional Remedies, and of Medicinal and Isthmo-thropic Inhalations, give him a degree of success which can never attend a merely partial treatment of these Affections. Dr. FITCH may also be consulted for all derangements of the system proceeding, or giving rise to Pulmonary Diseases, particularly CATARRH, DYSPNOEA, COSTIVENESS, AND FECALE COMPLAINTS. Persons wishing to consult, but unable to visit Dr. FITCH, can do so by sending him a written statement of their case. A personal examination is however always preferable, as important symptoms are sometimes overlooked by the patient; and also as constant practice in consultation enables Dr. FITCH to determine the condition of the Lungs with great accuracy; thus of course enabling him more successfully to modify and adapt treatment to individual cases.

**CONSULTATIONS FREE.**

Dr. C. M. FITCH has associated with himself in practice Dr. J. W. SYKES, for a long time his assistant, a gentleman in whose professional ability he has the highest confidence; and he furthermore wishes it distinctly understood that he has no longer any professional connection with Dr. S. S. Fitch, but that communications will hereafter be addressed to

July, '56, 1 year

CALVIN M. FITCH, M. D.,  
 459 Main street, Buffalo, N. Y.

**HICKOK'S CIDER MILL.**

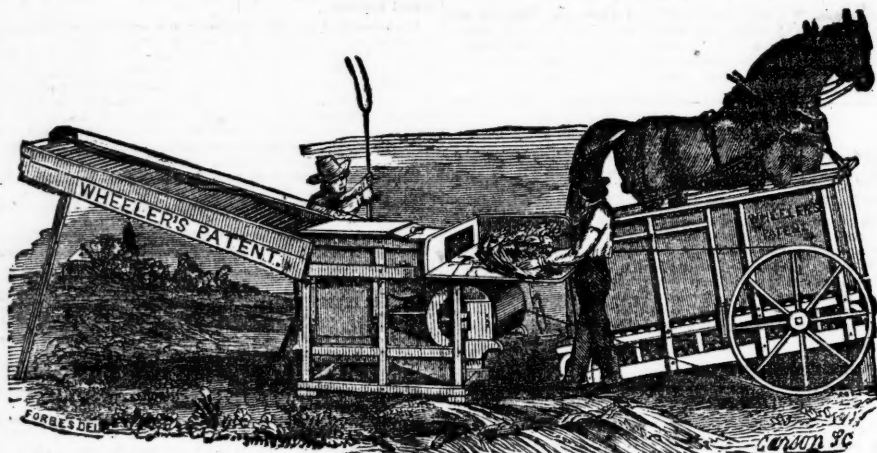
A new, enlarged and improved machine. Price \$40. D. O. & W. S. PENFIELD, Sept:3t



# NEW YORK STATE AGRICULTURAL WORKS.

- BY -

WHEELER, MELICK &amp; CO.,



Double Power, and Combined Thresher and Winnowing, in operation.

We are Manufacturers of Endless Chain Railway Horse Powers, and Farmers and Planters' Machinery for Horse Power use, and are owners of the Patents on, and principal makers of the following valuable machines:

## WHEELER'S PATENT SINGLE HORSE POWER, AND OVERSHOT THRESHER WITH VIBRATING SEPARATOR.

This is a One Horse Machine, adapted to the wants of medium and small grain growers. It separates grain and chaff from the straw, and threshes about 100 bushels of wheat or twice as many oats per day, without changing horses—by a change nearly double the quantity may be threshed.

Price \$125.

## WHEELER'S PATENT DOUBLE HORSE POWER, AND OVERSHOT THRESHER WITH VIBRATING SEPARATOR.

This Machine is like the preceding one, but larger, and for two horses. It does double the work of the Single Machines, and is adapted to the wants of large and medium grain growers, and persons who make a business of threshing.

Price \$160.

## WHEELER'S PATENT DOUBLE HORSE POWER, AND COMBINED THRESHER AND WINNOWER.

(Shown in the Cut.)

This is also a Two Horse Machine; it threshes, separates the grain from the straw, and winnows it at one operation, at the average rate of 150 bushels of wheat and 300 bushels of oats per day. In out door work, and for persons who make a business of threshing, it is an unequalled Machine.

Price \$245.

ALSO, CLOVER HULLERS, FEED CUTTERS AND SAWING MACHINES.

Our Horse Powers are adapted in all respects to driving every kind of Agricultural and other Machines, that admit of being driven by Horse Powers in use—either are sold separately.

To persons wishing more information and applying by mail, we will forward a circular containing such details as purchasers mostly want—and can refer to gentlemen having our machines, in every State and Territory.

Our firm have been engaged in manufacturing this class of Agricultural Machinery, 22 years, and have had longer, larger and more extended and successful experience than any other House.

All our Machines are warranted to give entire satisfaction or may be returned at the expiration of a reasonable time for trial.

Orders from any part of the United States and territories, or Canada, accompanied with satisfactory references, will be filled with promptness and fidelity. And machines securely packed, will be forwarded according to instructions, or by cheapest and best routes.

WHEELER, MELICK & CO.

April, 1857. splt

Albany, N. Y.